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THE LEECH BOOK OF BALD.

Facsimile of leaf containing the concluding sentences of Book I, and the beginning of the list of chapters of Book II. From the B. Mus. MS. Reg. 12, D. xvii, fol. 58 b; written 900–950 A.D. See *A.-S. L.*, Vol. II, p. 158.

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# Z-PATRICK
# S FOR 1903

## DICINE IN THE
## XON TIMES

BEFORE THE ROYAL COLLEGE
ON, JUNE 23 AND 25, 1903

AYNE, M.D. Oxon.

*College of Physicians; Fellow*
*ing Physician to St. Thomas's*
*agdalen College, Oxford*

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# PREFATORY NOTE

It is right to say that these Lectures have been altered since they were delivered, and expanded by the introduction of extracts from the works discussed and of other matter.

I have thankfully to acknowledge the help which I have received from Dr. Henry Bradley, who has corrected a large number of inaccuracies in Mr. Cockayne's translation of the Anglo-Saxon texts; and has made other important suggestions, of which I have been glad to avail myself. Professor Skeat has kindly allowed me to consult him upon some points. I must also express my thanks to the Delegates of the Clarendon Press for undertaking this book, and for illustrating it so fully.

The illustrations have been chiefly taken from MSS. in the British Museum, and have been first carefully copied in black and white by Miss E. A. Ibbs; since the faded and sometimes defective coloured figures do not always come out well in direct photography. Four cuts are taken from a paper by the author in the *Transactions of the Bibliographical Society*, by permission of the Council

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of that Society. Three blocks have already appeared in the *British Medical Journal*; the rest are new. The facsimile which forms the frontispiece is from a precious MS. in the British Museum, the only surviving copy of the oldest medical book in the English language.

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# LECTURE I

## PART I

### INTRODUCTION

Mr. President,—It is my first, and a pleasing duty, to thank you and the College for the honour conferred upon me by choosing me as the first Fitz-Patrick Lecturer. And it is right also that before entering on the subject of these lectures, I should in a few words explain the origin and aim of this new foundation. This lectureship owes its existence to the munificence of a lady, Mrs. Fitz-Patrick, who desires in this way to honour the memory of her late husband, Dr. Fitz-Patrick, member of this College, a physician of great worth, learning, and accomplishments, and at the same time to promote an object in which Dr. Fitz-Patrick himself was much interested, the advancement of the study of medical history. This pious and generous gift deserves not only what have been gladly rendered, the most cordial thanks of our College, but due recognition from all who are interested in the progress of the two sciences, medicine and history, which it is designed to serve.

For the following particulars respecting Dr. Fitz-Patrick I am indebted to my friend, Dr. Norman Moore :—

'Dr. Thomas Fitz-Patrick, who must hereafter be



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mentioned as one of our benefactors, was born in 1832 at Virginia, a little country town standing at the end of a long lake at Cavan, where his father, who was a substantial tenant of Lord Headfort's, resided. He was educated first at the college in the town of Carlow, and afterwards at Trinity College, Dublin, where he obtained several prizes and graduated M.D. His first professional occupation was the dispensary of Moynalty, a village in Meath, not far from Virginia. Here he made valuable friends, who encouraged his reading and taste for literature.

'Dr. Fitz-Patrick afterwards went to India in the medical service of the East India Company, but becoming seriously ill there, soon returned and began practice in London, where Lord Headfort's family and other friends encouraged him to settle. Here he soon found a circle of friends and patients who remained attached to him throughout his life. He became a member of our College in 1868.

'Dr. Fitz-Patrick was born in a district of Ireland with many literary associations, the birthplace of several old Irish poets, musicians, and historians, and in the 18th century the home of writers such as Henry Brook and Thomas Sheridan. The varied literary associations of his native district had, Dr. Moore thinks, a great effect in giving Fitz-Patrick a taste for literature of all kinds.

'He was a man imbued with learning, well read in Homer and in Lucretius, and a student of the Spanish text of *Don Quixote*. Besides Spanish, he

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knew Italian, French, and German, as well as something of Hebrew, of modern Greek, and of Danish. His knowledge of English literature was extensive and his taste good. He had travelled as well as read, and having thus accumulated all the materials for conversation, he was a delightful companion. His intellectual attainments were the ornaments of solid virtues, and he deserves to be remembered with honour in this honourable place.'

It is with great pleasure that I quote these words, and feel assured that they well describe the physician with whose name these lectures are associated.

In assigning the history of medicine as the subject of this lectureship, the foundress has been guided by the wise advice of our eminent Fellow, Dr. Norman Moore, who was an intimate friend of our deceased member.

While, therefore, the warmest thanks of the College are due, and have been already expressed to Mrs. Fitz-Patrick for her munificent gift, we must also recognize the great services of Dr. Norman Moore, to whom we understand the conception of this scheme, and the plan under which it is to be carried out, are due. It may seem to many, as it seemed to me, that he would most appropriately have filled the post of the first Fitz-Patrick Lecturer. I would rather that he had been here instead of myself. It was only when I was assured that he, with generous self-abnegation, but decidedly, declined to be appointed, that I felt justified in accepting the honourable task which the President and Censors

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have entrusted to me. I can only say that I will do my best.

### THE HISTORY OF MEDICINE

We must confess, with some shame, that our own country has been, and is behind most other civilized nations in the bulk and value of its contributions to the history of medicine. Germany, France, and Italy have produced, on this subject, brilliant and profound works, which remain our standard authorities. The smaller countries such as Holland and Switzerland have not been behindhand; while our cousins across the Atlantic are now displaying characteristic energy and zeal in the study of medical antiquities. They have indeed already produced, in the *Surgeon General's Catalogue* of Dr. Billings, by far the most complete bibliography of medicine, and probably the best bibliography of any large branch of science, ever compiled in any age or country.

When we consider the interest shown, and the positive results achieved in medical history, by the medical profession in all these countries, we must admit that our own countrymen have displayed, in comparison, lamentable apathy and but little industry. In one department of the subject certainly, that is in medical biography, we have important works to show; for the Roll of our College as written by our late Librarian, Dr. Munk, is certainly unsurpassed, if not unequalled, in any foreign country, and other standard medical biographies might be mentioned.

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We have also interesting collections for the history of medical institutions, such as the *Memorials of the Craft of Surgery in England* by the late Mr. J. F. South, edited by Mr. D'Arcy Power; the *Annals of the Company of Barber Surgeons*; and good histories of the Colleges and Faculties of Physicians and Surgeons of Edinburgh, Glasgow, and Dublin. Mr. Rashdall's important and learned work *The Universities of Europe in the Middle Ages* deals with some important periods in medical education. The Early English Text Society has published some interesting mediaeval works on medicine. Finally we have in Dr. E. H. Withington's *Medical History from the Earliest Times* (London, 1894) an excellent compendium, which is less widely known than it deserves to be.

But although these valuable materials for history have been collected, the amount is not very great, and the work of collating them has not been attempted. England is conspicuous among European countries for the zeal with which her political, social, and literary history has been investigated, and especially for the unrivalled series of records and memorials which have been collected for the purpose of such investigations. But the history of science generally, and especially of medicine and surgery, has been deplorably neglected. We have done little for medical history in general; but relatively almost less for our own medical history. The history of medicine in Britain, it is not too much to say, remains to be written. If in the standard

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medical histories we may sometimes think that British medicine is inadequately represented; this is not the fault of the historians. It is our fault for not having supplied them with adequate materials.

The foundation which is this day inaugurated is the first attempt to have the history of medicine taught or expounded in this country. In considering therefore what department of this vast field could be advantageously treated within the narrow limits of these two lectures, it seemed best to begin with that part which has been most neglected, the history of medicine in our own country.

The range of the inquiry cannot be wide. It is limited no less by the powers and knowledge of the lecturer than by the short time at his disposal. It would be impossible to cover more than a small period of history, and that imperfectly. But if we were to attempt, however inadequately, to lay something like the first stone of the history of English medicine: to make a rough beginning which, it is to be hoped, may be revised and corrected, as well as continued by other and better equipped investigators; this attempt, though humble, might not be without fruit.

The expression 'English medicine,' which it is necessary to use, implies a still further limitation. There was no doubt in all the Celtic countries a traditional popular medicine, which has little or nothing to do with the subject of these lectures. Pliny has recorded how the Druids in Gaul and Britain gathered with mystical ceremonies the

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sacred mistletoe; and mentions also how they collected medicinal plants with special rites, implying that the priesthood possessed a herbal medicine, of which the knowledge was apparently confined to themselves[1]. In Wales there seems to have been an original and hereditary medical profession. Ireland had a medical literature, though I believe of later date than what I propose to consider.

But with Celtic medical history I should be quite incompetent to deal, even in the most superficial way, and must therefore pass it over entirely.

It remains then to begin with the earliest record of the English people settled in England, our Anglo-Saxon ancestors; and try to form for ourselves some idea of what medical science and medical practice meant in those early times. It is there that we find the real beginning of English medicine.

## PART II

### HISTORY OF ANGLO-SAXON MEDICINE

When we inquire into the state of medicine among ancient peoples in any bygone time, there are several sources of information which we have

[1] Druidical rites were still kept up in Britain after they had been suppressed in Gaul by Tiberius (Plin. *Nat. Hist.* XXX. 4). The herb *Selago* was to be gathered with the right hand without the use of iron by a consecrated person in a white robe with feet scrupulously washed. *Samolus* was to be gathered with the *left* hand, by a fasting person, who was not to look behind him (ibid. XXIV. 62, 63). Some of these ceremonies were observed in much later times.

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to examine. We have to inquire what general history and literature tell us about the medical profession since we assume that there have always been doctors of one kind or another. We ask whether any laws are still extant showing the relations of the profession to society. Besides written documents, we search for monuments or inscriptions, often more trustworthy than books, bearing upon the subject. We examine contemporary works of art for representations of medical scenes or personages. We look over the material antiquities preserved in museums, such as weapons, instruments, household gear, to discover surgical instruments as evidences of the state of medical and surgical art in those periods. Finally, more important and more copious in the supply of information than all these put together, we examine the literature of medicine itself, for where this is wanting, we can form but a very inadequate notion of the state of medicine at any particular time.

Now, applying these principles to the case of Anglo-Saxon medicine, we may consider which of the above sources of information are available. As to the evidence from history and literature, that furnishes, as we shall see, some interesting particulars about the medical profession. In the case of many ancient countries their laws throw much light on the subject of medical practice. There has been lately published, from inscriptions, the Code of Laws of Hammurabi, King of Babylon, in the twenty-third century B. C., which contains

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thirteen articles regulating medical practice. One deals minutely with the responsibilities of a surgeon performing operations on the eye [1].

The Anglo-Saxon laws, on the other hand are silent on the subject of medical practice; but it should be said that the collections of those laws which have been printed make no pretension to form a complete code, and only deal with a limited class of social relations.

Again, from monuments and inscriptions we can learn nothing for our purpose; Greek and Roman remains of this kind, as is well known, have supplied important materials for medical history; and even in our own country the few Roman antiquities bearing on medicine which have been discovered, supply the chief part of what we know about Roman medicine in Britain, but there are no corresponding Anglo-Saxon remains. In the relics of Anglo-Saxon pictorial art, as contained in illuminated MSS., there are, so far as I have been able to discover, no representations of medical subjects. Figures of medicinal plants form a distinct branch of art which will be spoken of later.

It would be very interesting if some Anglo-Saxon surgical instruments had survived, since we know what a flood of light has been thrown on ancient surgery by the discoveries of instruments at Pompeii, Herculaneum, and elsewhere; so that indeed the

[1] J. de Morgan, *Mémoires de la délégation en Perse*, Tome IV, Paris, 1902. Also *The Code of Hammurabi, King of Babylon*, B.C. 2285–2242. Translated by C. H. W. Johns. Edin. 1903.



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whole conception of Roman surgery has been altered. But so far as I know, our museums contain no surgical instruments from Anglo-Saxon times.

We fall back then upon the medical literature itself, as being the chief and indeed, apart from some brief historical allusions, the only source of our knowledge about Anglo-Saxon medicine. The history of medical literature forms a very large part of medical history. If we open a standard history of medicine, it may seem in some parts as if it were little else than a history of books. One feels that this is not quite just, as books contain but a small part of medical activity through all the ages. The author of a medical book is not necessarily a fair representative of his class. He may have been superior to the average. On the other hand, the mere fact that what he wrote has survived does not show him to have been a greater physician than others of his contemporaries who wrote nothing, or whose works are lost. Nevertheless since books are in the end more enduring than wrought metal or sculptured stone, medical writings are sometimes the only evidence we have of the state of medicine during long tracts of time.

### HISTORICAL REFERENCES

Now to return to the evidence of general history and literature, we have no evidence as to the state of medicine in England before the introduction of Latin Christianity by Augustine at the end of the

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sixth century. With regard to earlier times, we can only conjecture that the Angles and Saxons may have preserved some medical lore like that of their German ancestors and kinsmen on the continent. The old Germans had a popular medicine, which though partly connected with the worship of the gods, was not exclusively in the hands of a priestly caste like the Druids. Medicine was largely practised by women; and Tacitus relates that warriors wounded in battle brought their wounds to their mothers and wives to be attended to. Such may have been the custom of the heathen Saxons in England, but no record of it remains; and such customs would have died out sooner here, since the Anglo-Saxons were earlier converted to Christianity and brought in contact with Latin culture than their continental kinsmen.

From the earliest period at which history throws any light upon the subject, we find clear evidence of the existence of a medical profession, known in the Latin writings as *medici*; and in English books as *leeches*. It seems a pity that we have lost this useful word 'leech' which survived through the Middle Ages (and according to Archbishop Trench, much later in Ireland). At the present day we much need a collective expression for Physician, Surgeon, Apothecary, Doctor, Medical man, &c., all of them either partial or ambiguous in meaning; and in place of the seven syllables 'medical practitioner,' it would be a great convenience to

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use the one syllable 'leech.' There is no evidence that the leeches were always ecclesiastics, indeed the impression given is that they were often laymen. Contrary to the German tradition, there seem to be no accounts of women acting as leeches: though at a later time in the Middle Ages, noble ladies often appear as skilful surgeons [1].

We must now consider what references to medical practice or teaching can be discovered in non-medical writings before the medical literature proper commences.

The beginning of learning and civilization in a strict sense among the Anglo-Saxons cannot be dated earlier than the introduction of Christianity by Augustine in A.D. 597. How far this contributed at first to the progress of medicine cannot be ascertained. It is possible that the Christian missionaries from Rome, as modern missionaries do in heathen countries, brought with them some of the medical lore or practice with which they were familiar, that is the medicine of the Latin world; but no trace of it remains. It is more likely that they treated disease, if at all, by prayers, unctions, and religious rites according to the custom of the early church.

A more definite impulse was given to actual

[1] In the old ballad of 'Sir Cauline,' when a wounded knight is brought to the castle, the King calls out:—

'Come down, come down, my daughter deare,
Thou art a leech of skill.'

In an English medical MS. of the fourteenth century, I find a prescription composed by 'Lucy Beauchamp, the Earl's wife of Warwick.'

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learning by the arrival of Theodore, a learned Greek monk of Tarsus, who became Archbishop of Canterbury in the seventh century, A. D. 669. Theodore with his colleague the Abbot Adrian, also a learned scholar, founded a school at Canterbury, where both Latin and Greek were taught, so successfully, that according to Bede, some of their scholars who were living in his day, knew Greek and Latin as well as their native tongue[1]. He taught also poetry, astronomy and arithmetic. There is no mention here of medicine; but a curious and doubtless authentic story (told by Bede) of one of Theodore's pupils suggests that medicine was not entirely neglected. This pupil, John of Beverley, Bishop of Hexham and afterwards of York, from his learning and piety, had a reputation for working miracles. He was canonized after his death, and 'St. John of Beverley' became a favourite war-cry with the English in their Scottish wars. When visiting a nunnery at Wetadun (or Watton), in Yorkshire he was told by the Abbess that one of the nuns was suffering from a severe illness. She had lately been bled in the arm, in consequence of which the arm became painful and swollen, so that she seemed about to die. The abbess begged the bishop to give the sister his benediction, or at least touch her, which the abbess was quite sure would cure her.

'But on his inquiring when the maiden was bled, and being told that it was on the fourth day of the moon, he said "you have acted very unwisely and

[1] Bede's *Ecclesiastical History*, Book IV, cap. 2.

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unskilfully in bleeding on the fourth day of the moon; for I remember that Archbishop Theodore, of blessed memory, said that bleeding at that time was very dangerous, when both the light of the moon and the tide of the ocean are on their increase. And what can I do for the maiden if she is at death's door?"'

But moved by the entreaties of the abbess he went in to see the sick girl, taking Bede (the narrator) with him, and found her very ill. The bishop said a prayer over her, and gave her his blessing. Naturally, the patient felt immediately better, and soon recovered. John of Beverley performed, as Bede tells us, many similar cures by prayers and benedictions. In one case, that of a young priest who had concussion of the brain in consequence of a fall from his horse, the efforts of the bishop restored consciousness, and he then called in a leech or physician and charged him to set and bandage the fractured skull. It would seem then that the bishop was not himself a leech.

These events must have happened a little before A. D. 700[1].

We need not here discuss the miraculous powers which Bede ascribed to his master, but the story shows clearly that Archbishop Theodore had certain pretensions to medical knowledge, and taught it in some measure to his pupils. The rules as to right and wrong days for bleeding were very minute

[1] Bede's *Ecclesiastical History*, translated by Rev. L. Gidley, 1870, pp. 386, 394. (Book V, Caps. 3, 6.)

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among the Anglo-Saxons, as will be shown later. It should be observed that the reasons assigned by the bishop for avoiding certain days were physical facts, not superstitions. The second story shows that there was a class of leeches or physicians.

Further evidence of the existence of medical learning among the clergy is furnished by St. Aldhelm, a learned monk, Bishop of Dorchester, in A. D. 705, founder and Abbot of the Abbey of Malmesbury. He mentions seven sciences which ought to be studied, that is, in addition to the four sciences of the Quadrivium, Arithmetic, Geometry, Music, Astronomy, three others, viz.: Astrology, Mechanics, and Medicine[1]. It is highly probable that monks, and perhaps other clerical persons, learned and practised medicine, though it would not follow that all physicians or leeches were clerical.

### THE VENERABLE BEDE

The name Bede leads one to ask whether that great man, the noblest character in the Saxon Church, no less famed for his extraordinary learning (as learning was in those days), than for his piety and zeal, and known to after ages as the Venerable, possessed or taught any medical lore.

[1] Aldhelm's *De Laude Virginitatis*, quoted by Wright, *Biographia Britannica Literaria, Anglo-Saxon Period*, 1842, p. 70. If this programme was really carried out, the monks of Malmesbury must have studied medicine; but good authorities say that it was merely a mediaeval commonplace, and proves nothing about the actual studies of the place.

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Among Bede's numerous writings there are some on scientific subjects. He wrote *De Natura Rerum*, 'On the Nature of Things,' a treatise of astronomy and cosmogony; also *De Temporibus*, 'On Times,' that is on the seasons of the year, a work in which meteorology plays a great part, and other scientific works.

But the only work dealing with medicine is a short Latin tract on blood-letting, which the editor of Bede's works, Dr. Giles, thought to be probably genuine, and therefore admitted into his standard edition. It is entitled *De Minutione Sanguinis sive de Phlebotomia.*'

Although the title is a general one, the scope of the tract is confined to laying down what are the right and wrong days for bleeding, and especially warning against the letting of blood on certain unlucky days. The first paragraph may be translated as follows:—

'At any time by day or night, if need compels, we must use phlebotomy in acute diseases; and especially in the time from the eighth of the kalends of April to the seventh of the calends of June (March 24th to May 25th) we have good results from taking away blood, because then the blood is undergoing increase.'

'But afterwards have to be taken into account the qualities of the seasons, and the course of the moon, that is the 5th, 10th, 20th, 25th, and 30th days of the moon[1].'

[1] *Complete Works of the Venerable Bede*, ed. by A. Giles, London, 1843, vol. vi, p. 349.

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Prognostics drawn from the age of the moon were held to be important in various matters, such as the fortune of those who happened to be born on a particular day of the moon; the success of journeys or adventures begun on certain days and special things which ought to be done on them. All this is the subject of more than one of the treatises reprinted in Mr. Cockayne's *Anglo-Saxon Leechdoms*, along with prognostics from dreams, &c., but as they are not medical, I do not say more about them here[1]. Among other things in the tract is a mention of the unlucky or dangerous days in the year, called *Aegyptiaci*. This was a curious old superstition that there were certain days which were not only unlucky generally, but on which it was especially dangerous to let blood or undergo any medicinal treatment. Of these so-called 'Egyptian' days there were two in each month; but three were especially formidable. Bede in his authentic works

[1] *Prognostics from the moon's age.* This recognition of certain days of the moon's age as lucky or unlucky for beginning journeys or other work seems not to have always met with the approval of the Church, which is an additional reason for doubting whether this tract is rightly ascribed to Bede, at all events in its present form. St. Eloy (Eligius), Bishop of Noyon in France about A.D. 640, in a fine sermon quoted by Maitland (*The Dark Ages*, London, 1841, p. 150), speaks as follows:—

'Let no Christian observe the day on which he leaves or returns home; for God made all the days. Let none regulate the beginning of any piece of work by the day or by the moon. . . . Neither let any one fear to set about any work at the new moon: for God has made the moon on purpose to mark the times, and to temper the darkness of the nights, not to hinder anybody's work,' &c.



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refers to the Egyptians as the most accurate calculators, in the astronomical computations necessary to draw up the Calendar; but he says nothing about Egyptian days in the sense here intended.

The words of the tract are as follows:—

'There are many Egyptian days on which by no means or for any necessity is it allowable to let blood from man or beast, or to administer a (medicinal) potion. But of these days three are to be specially observed, viz., the eighth day of the Ides of April (April 6th), the first Monday in August, and the last Monday of December. This is to be carefully borne in mind, because all the veins are then full.

'But if on those days an incision be made into man or beast, (the patient) shall die immediately, either on the same day or on the third day, or (at least) shall not survive to the seventh day. And whoever shall take a potion shall die on the fifteenth day; and any one, male or female, born on those days shall die an evil death, and whoever on these days eats flesh of goose shall die on the fifteenth day.'

The Latin text being somewhat obscure and corrupt, I give it in a footnote [1].

[1] 'Plures sunt dies Aegyptiaci, in quibus nullo modo nec per ullam necessitatem licet homini vel pecori sanguinem minuere, nec potionem impendere, sed ex his tribus [tres] maxime observandi, octavo Idus April. illo die lunis [sic], intrante Augusto: illo die lunis exeunte Decembri; illo die lunis, cum multa diligentia observandum est, quia omnes venae tunc plenae sunt.

'Qui in istis diebus hominem aut pecus inciderit, aut statim aut in ipso die vel in tertio morietur, aut ad septimum diem non perveniet; et si potionem quis acceperit, quindecimo die morietur; et si masculus sive mulier in his diebus nati fuerint, mala morte morientur; et si quis de auca in ipsis diebus manducaverit, quindecimo die morietur.' (Op. cit., vol. vi, p. 350.)

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This passage is almost literally reproduced in one of the 'Anglo-Saxon Leechdoms,' of which I shall have to speak later.

'There are three days in the year which we call *Aegyptiaci*, that is, in our tongue, dangerous days; in which by no means, for no occasion, neither man's nor beasts' blood must be diminished; that is, the last Monday in April, the first Monday in August, and the first Monday in January [1].

Here the days are different, but the principle is the same. In another 'Leechdom' a still more elaborate account is given, though the word Egyptian is not used.

'The old leeches laid it down in Latin books that there are always two days in every month which are very dangerous for drinking any medical potion, or for blood-letting; because there is one hour in each of those days at which, if any vein is opened, it is loss of life, or long disease. A leech tested this, and let his horse blood at that hour, and it soon lay dead.'

Then follows a list of the dangerous days in each month through the year, which, though not called Egyptian, are the same as those so called elsewhere. It will not be necessary to enumerate them [2].

The belief in Egyptian or unlucky days, for which Bede (if he really wrote this tract) is our earliest English authority, was deeply rooted in England, as in other countries. There is in the British Museum

[1] *A.-S. L.*, vol. iii, p. 77.
[2] Ibid., vol. iii, p. 153.

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an English MS. translation of Bede's tract, entitled 'Medesyns approbate for mortal Sekenesses by Saynte Bede,' in which occur the following words :— '(Whoever) of mankynde letteth hyme blode upon any of these iii dayes he shall be dede withynne five days nexte that followyn. These be iii forbode dayes; the firste is the last daye of Averil, the secunde is the firste daye of Auguste, the thirde is the firste daye of September.'

This I suppose to belong to the fourteenth century [1].

In a Latin medical MS. of somewhat later date (in my library) I find the three fatal days are the 23rd of March, 1st of August, and 30th of November [2]. It was thought unlucky that Richard I was consecrated at London on the 3rd day of September, which was an Egyptian day. In early parish registers, it is said, the term Egyptian days is often found. One is reluctant to connect the name of Bede with anything so trivial as this absurd superstition, which, moreover, is mentioned only in a little tract, of which the authenticity is not beyond doubt [3].

[1] Brit. Mus. MS. Additional, 5467, fol. 71, 72.

[2] *Experimentum probatissimum. Qui in his tribus diebus hominem aut pecudem percusserit, tertia die morietur, et qui in his natus fuit mala morte morietur.* It would seem here as if the ill luck fell upon the striker or cutter (i.e. in bleeding), but probably the patient is meant.

[3] *Dies Aegyptiaci.* The origin of this name and of the belief implied in it are still obscure. The name is explained as being given because the Egyptians discovered or invented these days; which, whether true or not, is just the sort of explanation

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We pass then to his great work, *The Ecclesiastical History of Britain.* Bede's historical writings have some medical importance on account of his mention of epidemic diseases, and also for his allusions to the social position and activity of the medical profession in his times. His strictly clerical point of view and the prevalent atmosphere of miracle in his history are obvious enough; but with these features a judicious reader who can recognize

that any one could make up without knowing anything about the matter. But even accepting this, it is not at all clear why the Egyptians should have picked out two special days in each month. It has been suggested that these days were indicated by astrology, and that the Egyptians were acquainted with certain injurious aspects or combinations of the heavenly bodies occurring on those days. But it is not easy to conceive of such aspects or combinations which would recur twice in each month. To find the days, twelve Latin words forming two hexameters are given, something like the well-known Memoria technica of Logic; but this, of course, throws no light on their origin. It is remarkable that so many schoolmen and theologians should have written upon the subject as may be found quoted in Ducange's *Glossarium.* The earliest mention of Egyptian days quoted is by St. Augustine (fourth century). It is possible, therefore, that from Augustine Bede derived the idea, and transmitted it to the later Anglo-Saxon leeches of the tenth and eleventh centuries. But I have found these days mentioned also in a later Latin medical treatise well known to the Anglo-Saxons, the *Herbarium* of Apuleius Platonicus, as given in a MS. lately published by Sig. Giacosa (*Magistri Salernitani,* &c., Torino, 1901, p. 349). It might therefore have come from either source. In any case, the belief would appear to have been common in late Roman or early Christian times. But it was not a specially Christian belief, being distinctly spoken of as a *gentile* superstition. There is no mention of Egyptian days, so far as I know, in any Greek or Latin classical medical writer. The real origin of the superstition was probably Babylonian rather than Egyptian.

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the piety and veracity of the great Anglian saint will not seriously quarrel.

Some of Bede's narratives are well worth repeating. The following story, for instance, is of some historical importance, since it enables us to show that one at least of the epidemics of the seventh century was true bubonic plague. In the case of many of the so-called pestilences recorded by Bede this cannot be positively established, since the word *pestilentia*, as used by old writers, is ambiguous.

### THE DEATH, BURIAL, AND REINTERMENT OF SAINT ÆDILTHRYD

Ædilthryd, daughter of Anna, King of the East Angles, known in the Roman calendar as Saint Audry, was married to Ecgfrid, King of the Northumbrians, with whom she lived for twelve years in the state of virginity. Then, embracing a religious life, she founded the nunnery of Ely, in East Anglia, A.D. 673. After seven years' rule as abbess she is said to have predicted a pestilence which shortly followed, foretelling also her own death, and declaring the number of those who should die of the disease from her own house. Dying of the pestilence about A.D. 679 or 680, the abbess was buried among her own people in a wooden coffin.

The story goes on to say that sixteen years after her death it was thought fit to transfer the body of the sacred virgin to the church and place it in a marble coffin. When the grave was opened the

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body was found as whole and uncorrupted as if she had been buried the same day. A physician, Cynefrid, who was present both at her death and at her reinterment, was a witness to the fact, and added one curious circumstance in confirmation of it. He had, he said, been ordered to lance a large tumour which the abbess in her last illness had under her jaw. The operation gave some relief, but the patient died three days afterwards.

At the reinterment, says Cynefrid, he found the wound of the incision which he had made healed up in a wonderful manner, so that, instead of the gaping wound with which she had been buried, there appeared only the slightest trace of a scar [1].

Apart from the supposed miraculous preservation of the saint's body, for which there may have been some physical basis, it is clear from the above narrative that there was an epidemic of a fatal disease, accompanied with glandular swellings, i. e. bubonic plague, in East Anglia about the year A. D. 680 [2].

[1] Bede's *Ecclesiastical History*, Book IV, Cap. 19. Trans. Gidley, 1870, p. 330.

[2] Bede mentions a previous pestilence in 664 (the year of a solar eclipse), which is stated to have raged in Ireland in the same year, and another in 674. A severe plague occurred at Rome in 680, and again in the year 690, the latter being expressly called *Pestis Inguinaria*. These records show the prevalence of the plague in Europe at the end of the seventh century. The last great mortality recorded in the Supplement to Bede's *History*, A.D. 760–1, would seem to have been distinct from bubonic plague (Noah Webster's *History of Epidemic*

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Bede's *Ecclesiastical History*, our only authority in medical matters up to the eighth century, contains many other references to *medici*, or leeches. These allusions show that there was a regular profession of medicine, but do not show definitely what was the social status of the leeches, nor even whether they were clerics or laymen. There must have been some kind of military surgery, for we find that in A.D. 685, Hrothere, King of the Cantuarii, was wounded in battle, and died under medical treatment. The leeches seem, however, to have been in

*Diseases*, 1800, Vol. I, p. 162; *Encyclop. Britannica*, 9th ed., art. Plague).

With regard to the wonderful preservation of the Holy abbess's body, it is to be observed that similar stories are told of saintly personages, and of some not saintly, in all ages. It is not necessary to assume either a miracle or a mere invention. The appearances thus described would be caused by the formation of adipocere, which is often found when a body is buried or preserved in a cold and damp situation; and thus the abbess's body, enclosed in a wooden coffin and buried under the damp marshy soil of the undrained Isle of Ely, would be in conditions very favourable for this change. If it be asked why the same change was not observed in the bodies of the humble nuns as in that of the saintly abbess, the answer is obvious, that the bodies of the nuns were not exhumed. When the fatty tissues are completely transformed into adipocere, no further decomposition takes place for an indefinite period. A case of this kind caused great astonishment and became a public spectacle in London in the middle of the seventeenth century; the body of a citizen who had been buried thirty-four years in the chancel of St. Leonard's, Eastcheap, being found sound and undecayed. In this case it was noted that the fat on the body was as hard as white wax and very thick; evidently adipocere. It is described in a curious tract entitled *Immortality in Mortality magnified*, 4to, London, 1647.

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a somewhat subordinate position, since in Bede's narratives they generally act under the orders of a prelate or ecclesiastic, and are called in mostly for some surgical work. As many of the higher clergy had a great reputation for working miraculous cures, one sees that the ordinary leech was kept in the background, and that his mere pedestrian medicine and surgery would hardly keep pace with the brilliant thaumaturgy of the ecclesiastics. A more unfavourable atmosphere for the growth of scientific medicine or the development of a regular medical profession can hardly be imagined.

But if, without applying too strictly the hard scepticism of modern times, we look into these narratives of miraculous cures, we sometimes find them more rational than appears at first sight. They do not always deserve either the veneration claimed for a miracle or the obloquy deserved by an imposture.

For instance, the celebrated St. John of Beverley, before mentioned, being accustomed at the beginning of Lent to seek out some specially sick or poor person to whom he might do good, found a boy who was completely dumb, so that when he came to the bishop to receive alms he could not speak a single word. He was, however, as appears, not deaf. Besides this, he had so much scurf and scab on his head that no hair would ever grow there, but only some bristly locks were seen standing out round about it. The bishop provided a lodging for the youth near his own house, and on a certain day called him before him, and making the sign of the



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cross on the dumb boy's tongue said, 'Pronounce some word; say "Gæ"' (Yea). The boy immediately said what he was ordered. The bishop then added the names of letters—'Say A,' he said 'A'; 'say B,' and he said this also. And when he had said after the bishop the names of the letters, the latter proceeded to put syllables and words for him to say. And when he had repeated all these properly, he desired him to say whole sentences, and he did so, and went on talking the whole of that day and part of the night, so that he was completely cured.

Now we may assume that Bede, as is often the case with narrators of miracles, compressed into one act what was really a work of time. But we see that the process was neither more nor less than an ingenious and rational system of education in speech, devised by the natural acuteness of the bishop, and aided by the power of sympathy or personal magnetism which that wonder-working saint must undoubtedly have possessed. For a case of functional aphasia (as this apparently was, for the boy was not a deaf-mute) nothing could have been better.

The bishop then ordered a physician to pay attention to the scabbiness of the boy's head (probably due to ringworm or favus). He did as he was ordered, and, aided by the bishop's benediction and prayers, with complete success. 'The youth became of a clear countenance, ready in speech, and with hair beautifully wavy.'

Thus while the humble leech played his part, the

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whole glory of the achievement is given to the great worker of miracles, St. John of Beverley.

With this delightful story ends all that we can say about the state of English medicine in the age of Bede. And it is to be observed, moreover, that Bede belonged to the race of the Angles, and the stories he tells refer to the Anglian kingdoms of Northumbria and East Anglia. It is quite possible that the Angles possessed some medical literature written in Latin, but if so, it must have utterly perished in the storm of the Danish invasions. Many of the religious houses possessed valuable libraries. That of Wearmouth, founded by Benedict Biscop, was specially celebrated, but was completely destroyed by the Danes. The library of the church of York was so rich that the English scholar Alcuin, when living at Tours under the patronage of Charlemagne, felt severely the want of the invaluable books which he had studied there, and wished to have some of them copied for the use of his French students. Alcuin enumerates some of the more important authors included in it, but I do not find any mention of medical works.

The great abbeys of Peterborough, Croyland, and others in East Anglia which were burnt by the Danes at the end of the ninth century must also have possessed fine libraries. Moreover, that medical books existed in England in the eighth century is shown by letters from correspondents in England to Boniface, 'the Apostle of the Germans,' while that adventurous missionary was on the continent. The

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correspondent hopes to be remembered if Boniface should acquire any books on secular science, such as medicine, unknown at home: where he says, it is true, 'we have some medical books, but the foreign ingredients (drugs) which we find prescribed in them are unknown to us, and difficult to obtain[1].' It is easy to see that this might be the case with medical books of the Galenic school, treating of simples and drugs belonging to Southern Europe, and of compound medicines which the Saxons did not know how to make. The request shows that the Saxons possessed some medical books and were keenly desirous of obtaining more. Imperfect catalogues of some of the Anglo-Saxon libraries have survived, but we cannot trace in them the titles of any medical books properly so called, though the name of Isidore of Seville, author of a sort of cyclopaedia popular in the early Middle Ages, called *Etymologiae*[2], not unfrequently occurs.

After the close of Bede's *History* we have no materials for medical history till we come to the rise of Anglo-Saxon medical literature in the tenth century, an interval of nearly 200 years. And in crossing this interval of time we make a geographical transition also, for we pass from the Anglian kingdoms to the kingdom of the West Saxons, that

[1] *Bonifac. Epistolae*, p. 102; quoted in T. Wright's *Biographia Britannica Literaria, Anglo-Saxon Period*, 1842, p. 95.

[2] An account of some of the early Anglo-Saxon libraries may be found in *Bibliomania in the Middle Ages*, by F. S. Merryweather, London, 1849; a little known but interesting work.

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realm of Wessex which was made illustrious by Alfred, and which fell with Harold on the field of Hastings. The medical literature which we have now to consider, though we may call it in general terms Anglo-Saxon, was distinctly Saxon, and its origin is closely associated with the reign and the literary school of Alfred the Great.

## PART III

### THE ANGLO-SAXON MEDICAL LITERATURE

The English medical literature of the Anglo-Saxon period, covering a space of more than two centuries, is so striking a phenomenon in the history of medicine, and has been so much neglected by medical historians, that it seems a patriotic duty, as well as an obligation to historical truth, to give such an account of it as our limits permit.

This cannot be done without some reference to Anglo-Saxon literature as a whole; of which I am totally incompetent to speak, except as a reporter of the opinions of others. But it is well known that our branch of the Germanic stock was the first to produce a true national literature. The Anglo-Saxons possessed a body of written language, cultivated in form, rich and comprehensive in contents: comprising poetry, legend, history, religion, and science, at a time when their continental kinsmen could show nothing better than the traditional songs and legends of a rude people,

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preserved by oral recitation; or for written literature only some isolated translations of sacred books into the vernacular. What learned books the continental nations had were written in Latin. The Anglo-Saxons also produced a considerable Latin literature; but their vernacular literature was something beyond and outside this, to which the continental nations could not at that time show any parallel. Their literary successes were no doubt due in great part to national traditions and inborn literary skill; but they were also largely influenced and stimulated by the example of foreign, that is, classical literature. When the study of Greek and Latin was introduced by Theodore of Canterbury and his allies, their native pupils embraced, with remarkable intelligence and zeal, the learning thus presented to them. In the words of Mr. Wright—

'The Anglo-Saxons approached the intellectual field which was thus opened to them with extraordinary avidity. They were like the adventurous traveller who has just landed on a newly discovered shore: the very obstacles which at first stood in their way seemed to have been placed there only to stimulate their zeal. They thus soon gained a march in advance even of their teachers; and the same age in which learning had been introduced among them saw it reflected back with double lustre on those who had sent it. At the beginning of the eighth century England possessed a number of scholars who would have been the just pride of the most enlightened age; and not only teachers, but books also, were sent over to the Franks and Germans. The science which they planted there

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continued to flourish long after it had faded at home [1].

Alcuin, indeed, helped to found schools in the empire of Charles the Great, which were superior to anything in his native England; and which flourished when learning in England was almost crushed out by the northern invaders.

It is this old English literature, refined by classical studies, that has been and is the object of so much interest and such keen study on the part of continental and especially German scholars. To their labours we owe a great deal of the light which has been thrown on it during the past generation. It almost seems, indeed, as if they appreciated the importance and beauty of our old literature more than we do ourselves.

There are two qualities displayed by the Anglo-Saxon literature which should be especially noticed. First, vivacity and energy of mind; secondly, great readiness to learn from foreign or ancient sources of knowledge. Our ancestors were hospitable to ideas as well as to men.

The surviving Anglo-Saxon literature is no doubt but a fragment of what once existed. Just as a few small jaw-bones in the Oxford Museum are evidence of the existence of a mammalian Fauna in the Oolites, so the comparatively few documents in Early English which have survived the destruction and neglect of centuries represent a wide and

[1] Thomas Wright's *Biographia Britannica Literaria, Anglo-Saxon Period*, 1842, p. 32.

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varied literature, great part of which has perished. Some of the most important and precious works are extant only in a single MS., and chance rather than intention has decided which should survive and which be lost.

The Anglo-Saxon libraries in the eighth century were, as has been said, very rich. That of York, spoken of by Alcuin, was especially celebrated. Had this and other great libraries been spared, we might now be in possession, possibly, of some Anglo-Saxon medical books written in Latin, if not indeed of some others written in English[1]. But since the great church at York, and indeed most of the churches and monasteries throughout England, were at one time or another pillaged and burnt by the heathen invaders, the greater part of their literary treasures, Latin or English, must have been destroyed, so that in the time of Alfred there was a great dearth of books on all subjects.

When we look more closely at the medical books of the Anglo-Saxons we find them to possess the same qualities, and to occupy the same relative position compared with other contemporary literatures, as did the Anglo-Saxon pure literature.

In the first place they are written in the vernacular tongue, and thus unique in Europe at their time. This is a very remarkable fact. The more I think about it, the more remarkable does it seem. The reason given by Alfred the Great for having Latin books translated into English was the

[1] Wright, op. cit., p. 27.

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ignorance of Latin in his time among the clergy; but long after that defect was remedied, the use of English books prevailed. He was also influenced by his affection for the old English literature, which he loved to hear read or recited. The same reasons may have applied in the case of the medical books. They were intended for a class of persons (not necessarily clerical), in many cases, imperfectly acquainted with Latin. The remarkable thing is that there should have been men, able and willing to read books, who were not Latin scholars. Now it is clear that a vernacular literature will be much more national than one in a learned language, which is the apanage of a class, and must be far more intellectually stimulating to the nation. In no other European country was there, at that time or for centuries after, any scientific literature written in the vernacular, or at that time any new scientific literature at all, even in Latin. This is a proof that the Anglo-Saxons possessed high intelligence and activity of mind; though not necessarily that they possessed deep learning. It was not till long after this that any serious and learned medical literature, as distinguished from popular medicine, was written in English. The other quality which we find in the medical as in the pure literature, and which seems characteristic of the Anglo-Saxon mind, is that readiness to learn from all sources, that hospitality to ideas, of which I have already spoken.

Furthermore the medical, like the other litera-



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ture, is a mere fragment of what must have once existed. There are no English medical writings extant which date from before the time of Alfred. If there were any such earlier books, they would probably have been written in Latin; but whether Latin or English they must have perished in the terrible destructions of the eighth and ninth centuries. There is one book, a sort of manual for a doctor's use, of which I shall speak presently, the only surviving work of its class, which seems to imply the existence of others of the same kind. Had the single MS. which remains of this work been destroyed, we should not know what an Anglo-Saxon professional manual was like.

We must now consider in detail what the Anglo-Saxon medical library, so far as it has been preserved, consists of. The total number of existing medical MSS. would not much exceed a score. Most are in the British Museum, some at Oxford and Cambridge. All the important ones have been printed and translated into modern English, and probably little remains to be discovered. Eminent Anglo-Saxon scholars whom I have consulted say they do not know of any other medical documents and would be at a loss where to look for them.

Those which we have are contained in three volumes printed forty years ago in the *Chronicles and Memorials of Great Britain*, published under the direction of the Master of the Rolls. Very fortunately for those who like myself are totally

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ignorant of the Old English called Anglo-Saxon, and to whom, therefore, the original MSS. in their clear and beautiful handwriting would be sealed books, they are translated into modern English.

The title is:—

'LEECHDOMS, WORT-CUNNING AND STARCRAFT OF EARLY ENGLAND, being a collection of Documents, for the most part never before printed, illustrating the History of Science in this country before the Norman Conquest. Collected and Edited by the Rev. Oswald Cockayne. Three volumes 8vo, London 1864–6.'

This collection included all the Anglo-Saxon medical books which the editor could find; and nothing material has been added in the forty years which have elapsed since it was published. Two of the treatises have been re-edited, with corrections and valuable elucidations by German philologists, and Anglo-Saxon medicine is mentioned by German medical historians. But in our own country the apathy of the medical profession with regard to such subjects remains undisturbed, and the earliest memorials of English medicine seem to awaken no interest whatever. Hence it is not surprising that the very great services rendered by the learned editor, Mr. Cockayne, some forty years ago, to medical history have never been properly appreciated[1].

[1] It would be wrong to pass over Dr. Withington's excellent *Medical History from the Earliest Times*, where Anglo-Saxon medicine is referred to; but the notice is necessarily very brief.

Some notices of Anglo-Saxon medicine are also contained in Mr. T. Wright's *Biographia Britannica Literaria* (*Anglo-Saxon*

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The medical works contained in Cockayne's edition (omitting some which are not strictly medical) may be arranged thus:

1. Leech Book, in two books. As this book was the property of one *Bald*, I call it the Leech Book of Bald. It is believed to have been written between A.D. 900 and 950.

2. What is called Book III of the Leech Book is evidently not a part of it, but a shorter work something like the other. It was written apparently in the same period. This and the former are from a MS. in the British Museum (Reg. 12 D, xvii). Cockayne, vol. ii.

3. An Anglo-Saxon translation of the Late Latin work called *Herbarium Apuleii Platonici*. With this are associated three or four other short treatises, which will be described presently. The text in Cockayne is printed chiefly from an illustrated British Museum MS. (Cotton, Vitellius ciii); but there are other MSS. The supposed date is 1000–1050. Cockayne, vol. i, pp. 1–373.

4. *Lacnunga*, or Recipes, a collection of miscellaneous prescriptions from a MS. regarded as later than that last mentioned (Brit. Mus. MS., Harleian 585).

5. *Peri Didaxeon*, or 'Of Schools of Medicine,' a treatise which has been shown by Dr. Max Löweneck to be partly founded on the Latin work of Petrocellus, a teacher of the school of Salerno, and which at all events reflects the teaching of that school in its first period, before it was influenced by Arabian medicine. It is of a later date, written about the middle of the twelfth century (Brit. Mus. MS., Harleian 6258). Cockayne, vol. iii, pp. 81–145.

*Period*), and in Professor Earle's work on English Plant-names, in various editions of the works of Bede, in Haeser's *Geschichte der Medizin*.

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6. Collections of medical charms are given in vol. i, pp. 374–95, and vol. iii, pp. 285–95.
7. A glossary of the names of plants (A.-S. and Latin) from the Durham Cathedral Library. Vol. iii, pp. 297–305.

The other contents of the volumes referring to dreams, the ecclesiastical calendar, astronomy, &c., need not be mentioned.

I said before, that in coming to the Anglo-Saxon medical literature we were passing over to the kingdom of the West Saxons and to the reign of Alfred the Great. These statements require some explanation. Among the books in Mr. Cockayne's collection, the most important, without doubt, is the treatise on medicine, or Leech Book of Bald. This work contains allusions to Alfred which show that it was written in that king's lifetime or shortly after his death, and by some one who had access to the royal archives or correspondence; so that the connexion is obvious. In the case of the translation of the *Herbarium* of Apuleius the connexion with Alfred is less direct, but nevertheless important.

We know that one of the objects aimed at in Alfred's educational schemes was to have valuable books of all kinds translated into English. He himself translated the historical works of Orosius and Bede, and Boethius *On the Consolation of Philosophy*, the last word of the ancient schools of thought; and caused other translations to be written, thus making his time what Mr. Wright calls 'the age of translations.' The school of Alfred was

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carried on in the next century by Ælfric of Canterbury, called the Grammarian, who brought out the Homilies in English, and who also, it is said, translated a manual of astronomy; as well as by other writers. It is to this time and this school that we must refer the version of Apuleius. Though not strictly belonging to the age of Alfred, it was a continuation of the noble project of that great king, to put into the hands of his people the best books of all kinds, written in their native tongue. With regard to some other books of the collection, it is not quite clear when they were written or in what part of the country. But that the early English medical as well as the general literature went on growing for two and a half centuries after Alfred's death shows that it met a national want.

Before speaking in detail of the old English medical books, I will venture to say a word about the spirit in which they should be studied. Too often, those few persons who have interested themselves in these monuments of ancient science have treated them in one of two ways. Either they have picked out something especially unlike the ways of modern thought, and held it up to scorn as showing the folly of our ancestors, or else in kinder mood they have condescended to be amused, and calling anything old and unfamiliar 'quaint,' dismissed it with a smile. Neither of these methods will help us to understand the ancient world. The folly of our ancestors is no explanation. Their knowledge was no doubt extremely limited; they saw old and dis-

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tant things through a dense and prevailing fog of ignorance. But that they tried to understand them at all is a proof of their wisdom, not of their folly.

Still more misleading is the habit of regarding the rude features of primitive art, the stammering words of an infant literature, the childish fallacies of early science, as something to be amused at. Till we have got beyond the stage of calling these old things merely 'quaint,' there is no possibility of understanding them at all. Therefore, if we quote from the old books things which appear strange in our eyes, foolish things if you like, it is not with the object of raising a laugh or of flattering the modern sense of superiority. The only way to understand these old writers is to try to put ourselves as far as possible in their place, and conceive how nature and science presented themselves to the eyes of the early teachers and learners in the tenth and eleventh centuries.

### THE LEECH BOOK OF BALD

This, the most important memorial of Anglo-Saxon medicine which has survived, is a definite and completed treatise, occupying 109 leaves of the MS., and 299 pages in the printed edition. It is divided into two books, the first containing eighty-eight, the second sixty-seven chapters. Each book has a full table of contents or headings of chapters. The first chapter begins with leechdoms against affections of the head, and then proceeds downwards *a capite ad pedes*, after the method of the later Greek

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physicians, first introduced, I think, by Alexander Trallianus, who lived in the sixth century after Christ, and closely followed in the Middle Ages. Thus we have in succession in the first thirty chapters, the eyes, the ears, the throat, parts of the face, the teeth, affections of the chest, including cough; the heart, stomach, loins, thighs, legs, and lastly the feet; the thirtieth chapter treating of chilblains on the feet. But after this no regular order is preserved, the remaining chapters containing prescriptions for a great variety of diseases, such as tumours, skin affections, paralysis, fevers, bites of snakes, and so on.

The second book is concerned chiefly with internal and abdominal diseases; stomach, liver, and spleen, with some miscellaneous prescriptions, and differs a good deal from the first book. It is more learned, including some recognition of signs of disease and attempts at diagnosis, and contains, as we shall see, many passages which may be traced to Greek and Latin medical writers.

At the end of the second book we find the following verses:—

'Bald habet hunc librum, Cild quem conscribere iussit.
Hic precor assidue cunctis in nomine Christi
Quod nullus tollat hunc librum perfidus a me
Nec vi, nec furto, nec quodam *famine*[1] falso.
Cur? quia nulla mihi tam cara est optima gaza,
Quam cari libri quos Christi gratia comit.'

[1] *Famen* (Low-Latin) = *oratio, verbum.*

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'Bald is the owner of this book, which he ordered Cild to write.
Earnestly I pray here all men, in the name of Christ,
That no treacherous person take this book from me,
Neither by force, nor by theft, nor by any false statement.
Why? because the richest treasure is not so dear to me
As my dear books, which the grace of Christ attends.'

The form and language of Bald's hexameters may be open to criticism, but their sentiment is admirable. They show clearly that it was not because Bald could not read Latin that he wanted a book written in English.

It would seem from this that Bald was a leech who wanted this book for his own use. Whether Cild was merely the scribe, or the compiler of the work, is not quite clear: from the *conscribere* I should be inclined to think the latter, and also because the MS. has some strange marks on the margin, which, according to Mr. Cockayne, seem to point to the sources from which certain portions of the book were taken. Whether Bald and Cild were clerical persons is not stated; but most probably one or both were monks, since books were hardly written except in monasteries.

The MS. is believed to have been written in the first half of the tenth century, that is, soon after the death of Alfred. The book itself must have been composed at an earlier date; for the fact



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that the scribe has tacked on Book III, which was really nothing to do with Bald's Leech Book, seems to show that this was at all events not the original MS., and must have been copied from some older source. Sufficient time had elapsed for some confusion to creep in. At all events the book is referred to soon after the era of Alfred.

This appears then to have been the textbook of a practising doctor; and the writer, who must also have been a doctor, refers to two other leeches by name, Dun and Oxa, so that the existence of a class of professional leeches is clearly established. Whether all were clerical persons it is impossible to say.

The book is in the main therapeutical, consisting of prescriptions or formulae for a large number of diseases, with scanty references to their symptoms and pathology. There is nothing like any general introduction or statement of principles, whether of pathology or treatment.

The maladies prescribed for are in part diseases with definite names, Greek, Latin, or English; in part groups of affections, such as affections of the head, of the eye, of the abdomen, &c.; and again in part symptoms, such as headache, cough, &c.

It would be impossible to enumerate the diseases named. They are such as head affections, 'half-head's ache' (hemicrania), eye and ear affections, sore throat, hare-lip, bringing up blood, 'host' or cough (still extant as a provincial word), 'circle-adle,' i. e. shingles; 'black and deadened body,' i. e. gangrene;

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contraction of sinews, broken leg, &c. There are names also for a 'rough' disease of the skin, for a 'spring disease,' and for many other maladies.

In the second book is a rather long account of half-dead disease, that is hemiplegia. *Fever-adle*, that is, fevers, are mentioned, among which are distinguished *tertian*, *quartan*, *quotidian*. There is also *lent-adle*, or spring disease, which must refer to spring agues or tertians. *Theor-adle* is translated 'dry disease' by the editor, but this is improbable (the true meaning is discussed on p. 48, note). 'Poccas,' or *Poc-adle*, is very definitely mentioned, and must mean small-pox, since in some charms found elsewhere the word 'Poccas' is taken as equivalent to 'Variola.' This is important, since the early use of the word 'pox' in this sense has been doubted. But probably the Saxons did not draw the line between this and measles. Pestilence is referred to, and not being the same as small-pox probably meant the bubonic plague. The word translated 'flying venom,' or in modern language 'air-borne contagion,' seems to refer to epidemic diseases generally. In one place this is associated with the expression 'venomous swelling,' which may refer to buboes (*A.-S. L.* ii. 113), and confirms the conclusion that bubonic plague was definitely known. A word meaning 'rough disease' is translated by Mr. Cockayne 'leprosy'; but I think it is not certain that this disease was meant. It was more likely the *lepra* of the Greeks, that is psoriasis and other

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rough skin affections. The name 'mickle body,' i.e. enlargement of the body, seems to mean elephantiasis in the modern sense.

Besides snakes and other venomous creatures, various kinds of worms are mentioned, and remedies prescribed for them. It is not always easy to say what species are meant, especially as the word 'worm' was applied to all kinds of lower creatures, including insects. Thus we have 'hand worms,' 'deaw worms[1],' 'worms which ail men within,' 'the small worm,' 'worms which eat a man's flesh,' 'the boring worm,' and so on; also leechdoms 'for a worm-eaten body.'

The hand worm would seem to be the itch mite (*Acarus scabiei*)[1], and some of the remedies are appropriate for this.

The following are some of the leechdoms (slightly altered in order):

'1. For hand worms and "deaw worms": take dock or clote, such as would swim, mingle the roots with cream and with salt, let it stand for three nights, and on the fourth day smear therewith the sore places.

'2. If a worm eat the hand: take marsh maregall, red nettle, red dock, and the small bur, boil in cows' butter; when the salve is sodden, then further take of salt three parts, shed thereupon, shake together

[1] Dr. Bradley says 'dēaw-wyrm should not be rendered "dew worm." As dēag-wyrmede glosses *podagricus*, the dēaw-wyrm must have been something affecting the feet, as indeed the allusion on next page shows.' I should therefore conclude that it means the *Acarus* affecting the feet, and might be rendered 'foot worm.'

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and smear therewith; lather with soap, about night-time smear therewith.

'Against a hand worm, take ship tar, and sulphur, and pepper and white salt, mingle them together, smear therewith.

'Against a deaw worm, let the man step upon a hot coal; let him cool (his foot) with water, let him step upon it, as hot as he hottest may.

'For a deaw worm, some take warm thin ordure of man; they bind it on for the space of a night. Some take a swine's lung warm' (*A.-S. L.* ii. 123).

The fact that in paragraph (1) the same remedy is prescribed for hand worms and 'deaw worms' confirms the conclusion that this word means the itch mite affecting the foot.

The remedies for pediculi are curious:

'Against lice; pound in ale oak rind and a little wormwood, give (the patient) to drink.

'Against lice; quicksilver and old butter, one pennyweight of quicksilver and two of butter; mingle all together in a brazen vessel' (*A.-S. L.* ii. 125).

Another kind of worm is called by the curious name 'Ana worm.' Mr. Cockayne explains this as referring to a certain King of Sweden named On, who gave his name to a sort of illness: but the argument does not seem to me conclusive[1].

From the account it is clear that some worm is meant which lives under the skin, like the guinea-worm or dracunculus, which was known in the East though not in England. If the worm was English it could only refer to bots or maggots of bot-flies and breeze-flies, which infest horses and

[1] *A.-S. L.* ii. 115, and Glossary, 369.

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cattle. They rarely attack man; though perhaps, in ruder conditions of bucolic life, such instances would be commoner. The treatment by powdered glass I have not met with elsewhere.

'If the ana worm grow in a man smear with the black salve. If *the worm* eat through to the outside and make a hole, take a drop of honey, drop it on the hole, then have broken glass ready ground, shed it on the hole; then as soon as *the worm* tastes of this he will die. A salve against the ana worm thus shall one work: take cinquefoil, that is five leaf, and rue, boil them in butter, sweeten with honey.

'*A drink for the same.* Rub down into ale or into wine seeds of radish and of colewort, let the man drink it long and often against the ana worm till he be bettered.'

We observe also remedies for a 'fiendsick' man, that is a demoniac, and for a lunatic, and for the 'wode heart' or frenzy, and for 'mindlessness' (or idiocy) and folly. Also medicines are provided against the tricks of elves, and malicious 'rune-lays' or heathen charms; and if a man be 'mare-ridden,' i.e. hag-ridden or has nightmare, and if horses or cattle be bewitched (p. 291).

The remedies prescribed against these maladies are various. For the most part they are herbal medicines, a large number of herbs being often united in one prescription; though not more than in many prescriptions of later times up to the seventeenth century. Thus:

'*For a light drink.* Take elfthon, githrife, betony, the clove-wenwort, everthroat, horseheal, lupins; two

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parts of helenium, clote, waybroad, ontre, cropleech. For liquid let half be holy water, half clear ale.'

It would be difficult to identify all these worts, but they are certainly English.

'*A quieting drink.* Betony, helenium, wormwood, ontre, horehound, lupin, wen-wort, yarrow, dwarf dwostle, attorlothe, fieldmore (wild carrot).'

These prescriptions, in which native or garden herbs only are prescribed, may be considered as invented by the Anglo-Saxon leech himself. The formulae which have definite names of authors attached to them, viz. 'Dun' and 'Oxa,' are of this kind (pp. 121, 293). In one of these oakum or tow is mentioned.

Herbs were also worked into ointments, usually made with butter; e.g.

'*A wound salve.* Githrife and silverweed and the broad-leaved brown wort which waxeth in woods, and a bunch of the flowers of lustmoce (supposed by Cockayne to be lady-smock); pound all these and boil first in a half proportion of butter and wring through a cloth' (ii. 93).

A more elaborate way of using the herbs was in a bath, or even in a vapour bath; as in the following:

'*A bath for Blæce.* Boil the worts ten times in a basin and separately;—betony, neptan (nepeta), marrubium, agrimony, yarrow, mint, horseheal, hind-heal, churmel, earthgall, dill, marche, fennel, of all equally much. Make then a stool of three pieces of wood, with a hole below. Sit over a bucket and cover thee over from above with a garment lest the vapour escape; pour (the hot liquor) under the stool into the bucket; let it reek

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on thee. So mayst thou do thrice with the worts; and underneath stir with a stick if thou wilt have it hotter' (ii. 77).

Blæce, as appears from glossaries, meant some *white* affection of the skin, i. e. Vitiligo or Leucoderma.

As a specimen of an Anglo-Saxon prescription take the following, which is good for 'Thēor disease[1]':—

'Oxa taught this leechdom; take wallwort, and cloffing and kneeholn and everlasting, and cammock, and tunsing-wort, nine *parts*, brown(wort), bishop-wort, and attorlothe and red nettle, and red hove, and wormwood and yarrow, and horehound, pellitory, and pennyroyal; put all these worts into *Welsh* or foreign ale; and let him then drink it nine days, and be let blood.'

For the 'Thēor pain,' 'work into a drink alexanders, houseleek, wormwood, the two kneeholns, sage, savine, carrot, lovage, feverfew, marche, costmary, garlic, ash-throat, betony, bishop-wort; work them up into double brewed ale, sweeten with honey. Let him drink for nine mornings no other liquid, drink afterwards a strong portion, and be let blood[2].'

Here each of the potions contains fifteen or sixteen worts, and there are still other receipts for the same disease, so the leech Oxa had abundant resources.

[1] The word is *theor adl*, in plural *theor adlum*, translated by Mr. Cockayne 'dry disease,' but this explanation is not accepted by modern scholars. Dr. Bradley says that it was some inflamed swelling, and when occurring in the eye it is identified with 'fig.' I therefore leave the word in text untranslated.

[2] *A.-S. L.* ii. 121.

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With regard to the way in which the Anglo-Saxons used their drugs, it should be said that they employed almost exclusively simples, that is, the original herbs in infusions or powders which, though containing often a great number of herbs, are uncomplicated and very different from the formulae of Galen and from the elaborate confections or electuaries, that is, compound medicines, afterwards introduced by the school of Salerno, partly from Arabian sources. This shows that the art of pharmacy was in a very low state. Herbs were used as watery infusions and decoctions, or made up with ale, vinegar, and milk in draughts, or as confections made with honey; or mixed with butter as ointments.

They were also used as plasters or poultices, and, according to one prescription, in a vapour bath.

Prescriptions like these and many others must be regarded as founded on an empirical knowledge of the virtues of herbs, and as representing a popular herbal medicine. That such a medical art existed seems clear; and I shall afterwards bring forward some facts to show that the knowledge of herbs among the Anglo-Saxons was very considerable.

But there is a large element in this Leech Book of a very different character and having quite another origin. This is found mostly in Book II, which deals with internal diseases. In this book are many passages, especially those relating to symptoms and pathology, which convey the



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doctrines of late Greek and Latin medical writers; in some places making a near approximation to their words.

Before discussing the actual sources of this more learned part of the Leech Book, it may be well to quote a concrete example of the passages which show the influence of the Greek or Latin writers in the deeper and more thorough manner in which the subject is treated, and one instance fully quoted will be more instructive than numerous short quotations.

As an example, then, of the more elaborate description of a certain disease, I will quote the account of 'sore in the side,' or pleurisy.

'Here are leechdoms for sore of either side, and tokens how the disease approaches, and how a man may understand it, and how a man shall treat it. These leechdoms shall be done for sore of side, and these are the tokens of the disease, like unto the tokens of lung disease and the tokens of liver-pain.

'The men suffer with strong fevers and much soreness on both sides. At whiles the sore striketh upon the ribs, at whiles it is over all the side, at whiles it cometh on the collar-bones, or after a little on the shoulders or the lower belly. They cough frequently; at whiles they bring up blood; they suffer constant wakefulness; the tongue is dry; they cannot lie on the left side if the sore is on the right, nor on the right if the sore is on the left. . . .

'There is also cold of the fingers and weakness of the knees, their eyes and their hue are red, their discharge (expectoration) is foamy, their urine yellow, the inward digestion little, and there is pulsation of the veins. The breathing is painful, the face twitched; there is dewy wet on the breast, like

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sweat; roughness of the throat from within, whistling from the part where the sore is; delirium of the mind. If these tokens continue long, then the disease is too dangerous, and one can do nothing for the man. But ask the patient whether he were ever struck or stabbed in the side, or had a fall, or had a breakage. If it were so, he will be easier to cure. If it is come of cold, or of inward evil humour, it is so much the harder to cure' (*A.-S. L.* ii. 259).

About the first half of this description agrees to a certain extent with Aretaeus (*Morb. Acut.* lib. i, cap. 10), but can hardly have been directly copied from that writer; the differences are too great. It is still less like the description in Alexander Trallianus or that of Paulus Aegineta, who borrows from Alexander. A good many points are common to all the classical writers, from Hippocrates downwards.

But there are several 'tokens' in the latter part of the description which, whether accurate or not, do not come from any of the writers named, nor, so far as I can find out, from any ancient work known to us. The Saxon writer also recognizes the occurrence of traumatic pleurisy, and the possibility of confounding it with the idiopathic disease, which the ancient writers do not. He mixes up (as did also the ancients) some symptoms due to pneumonia or bronchitis, such as expectoration, haemoptysis, whistling râles. On the whole, both in its errors and in its correct statements, the account seems to show a compilation of ancient traditions mingled with some direct observation; and could hardly

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have been merely translated from any old book. Mr. Cockayne suggests that it may have been copied from Philagrius, but the extant fragments of that writer do not contain such a passage.

The account of pleurisy goes on to mention other tokens which are of bad omen, such as previous affection of the liver or lungs; but if the pain come from the spleen it is less dangerous. There is danger also when the expectoration 'is of many a hue and complexion.' This last phrase is a direct translation from Alexander Trallianus.

The rules for diet are short, and contrast with the copious directions given by the Greek physicians; from whom, indeed, the Saxon leech differs widely. For instance, Alexander expressly forbids shell-fish, but the Saxon recommends 'periwinkles removed from their shells.' This is taken from Marcellus Empiricus, who recommends 'cocleae' for pain of the side. Eggs are also recommended, and peas, with bread in hot water, and light food generally.

In his directions for the treatment of pleurisy the Saxon leech stands for the most part on ancient ways, and agrees on the whole with Alexander Trallianus.

He begins with a mild vegetable laxative, a 'wort drink,' given by the mouth or as a clyster through a horn. Then he prescribes local applications to the painful spot—a swine's bladder containing warm fresh water and oil as a sort of poultice; or a bladder containing warm salt (dry) with bran; a cerate with

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horehound on cloth as a plaster; plasters or fomentations containing various herbs, as dill, rue, and laurel leaves; fomentations with soft wool and oil. Most of these applications were well known to the Greek physicians.

If these measures do not help, a cupping-glass is applied on the shoulders; in severe cases the wounds are to be scarified and kept open for three days. Of course there is venesection, but not always at the beginning; the blood to be drawn from the arm on the opposite side to that affected. By way of internal remedies, coriander seeds with honey, and one nauseous remedy (borrowed from Marcellus Empiricus), droppings of a wild boar, collected in the woods, to be drunk with water. Also stronger purges if necessary.

It would be impossible to quote at the same length the accounts of other diseases. I will only say that for 'lung disease,' which corresponds more to pulmonary consumption than to pneumonia, there is a copious collection of receipts, chiefly of herbal remedies, some of them containing a formidable list of ingredients. A large number of diseases affecting the stomach are mentioned, and the remedies for these are not less numerous. It is the same with affections of the liver, and, what is strange, with affections of the spleen, about which the old leeches seem to have known much more than we know now.

The treatment of abscess of the liver culminates in a surgical operation, of which more hereafter.

In these more learned parts of the Leech Book we

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clearly see that the writer had before him some important authorities, Latin or Greek; and the question what authors were laid under contribution is a very interesting one.

None of these writers are ever quoted by name, except Plinius, meaning probably Plinius Valerianus. There is hardly anything to suggest a knowledge of the older classics, Hippocrates, Galen, or Aretaeus [1]. But a good many passages have been detected by Mr. Cockayne, which are evidently taken either in substance or in words from one Greek physician, Alexander of Tralles, who lived in the sixth century. There are also passages closely resembling corresponding passages in the works of Paulus of Aegina or Paulus Aegineta (seventh century), but much fewer. Now Alexander was not exactly an original writer, as much of his material was borrowed from Galen and other Greek physicians, and Paulus copied much from Alexander. A still earlier Greek writer, Oribasius (fourth century), who copied Galen, seems to have been the original of one passage, and one was perhaps borrowed from Aëtius (sixth century).

There are also passages borrowed, equally without acknowledgement, from later Latin writers, such as Plinius Valerianus, sometimes called Pseudo-Plinius, not to be confounded with the great Roman naturalist Plinius. The name is once mentioned (vol. ii, p. 155), but the quotation cannot be verified. Others

[1] Mr. Cockayne detects allusions to Galen and Aretaeus in two passages (*A.-S. L.* vol. ii, pp. 18 and 208), but it appears to me that the resemblance is not close.

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are Marcellus Empiricus, who lived about 400 A.D.; Sextus Placitus, the writer of a very poor book about medicines derived from animals, which we know was translated into Anglo-Saxon; Theodorus Priscianus, and perhaps others. But all these writers borrowed from their Greek predecessors; and therefore the identification of passages as directly taken from them is sometimes doubtful.

The materials drawn from the Greek would make, Mr. Cockayne thinks, about one-fourth of the whole book, but this seems to me to be a rather high estimate. Most of the borrowed matter is from Alexander, and there is no reason to think that the Anglo-Saxon compilers went back further than that writer.

Besides the above-named writers, no others can be identified as the authorities of the Anglo-Saxon compiler. I have tried to detect resemblances between certain passages of the Leech Book and corresponding parts of Celsus, Caelius Aurelianus, and Cassius Felix, but without success. Moreover, it is well to state that there is nothing in this book which recalls any writer of the school of Salerno. Indeed, the earliest surviving works of that school (as printed in modern times) are of later date than the tenth century.

Now with regard to the Greek writers, the interesting question arises whether the Anglo-Saxon compilers knew their works in the original or through the medium of Latin translations. We have seen that at an earlier period learned men in

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England had a considerable knowledge of Greek. But before and at the time of Alfred learning had so much declined that it is improbable there were any real Greek scholars in England. That there were men capable of translating from the Latin is evident from the works of the king himself and of those whom he employed in translations.

Moreover, it seems as if all that is traceable as of Greek origin might have been obtained from Latin translations. The works of Alexander, according to his latest editor, Dr. Puschmann, were translated into Latin at least as early as the end of the ninth or beginning of the tenth century (say 900 A. D.), since a MS. of that date still exists in the library of Monte Cassino. This is a little before the date of our Leech Book, and probably there were still earlier MSS. One point in favour of the Anglo-Saxons having borrowed from Latin versions is that they have included certain fragments of an ancient Greek writer, Philagrios, which are embedded in the text of Alexander. Now these fragments, Dr. Puschmann says[1], are found in the Latin, but not in the Greek MSS. of Alexander's works. Of course, Philagrios is not mentioned by name, any more than Alexander, in the Saxon version[2].

[1] *Alexander von Tralles*, edited by Dr. Theodor Puschmann, Vienna, 1878, vol. i, pp. 91, 104.

[2] Since, however, the Latin MSS. must have been translated from a Greek original, we should naturally infer that some Greek MSS. existed, containing these fragments of Philagrios. And, in fact, these fragments are given in Greek in the edition

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On the whole, then, we must conclude that there is no necessity to suppose that the passages from Alexander were taken from the original Greek text. It is most probable, if not certain, that they came from a Latin version. The amount apparently borrowed from other Greek writers is so small that the question hardly arises.

We see then that the dogmatic or literary part of the Anglo-Saxon medicine was based upon a few late Greek and Latin authors. What was the general character of the materials on which they built?

It must be confessed that the Anglo-Saxons, with all their zeal for learning and respect for the ancients, were very unfortunate in the time at which they began to form their medical literature, namely, the period from the ninth to the eleventh century. It was the time when European medicine stood at its very lowest level; and if any period deserved the name of the dark ages it was this. The works of the classical Greek physicians

of Alexander Trallianus, in Greek and Latin, edited by Guinther of Andernach (Guinterius Andernacus) at Basel, 1556. These fragments might have been derived from some Greek MS. now lost; but Dr. Puschmann thinks that they were more probably retranslated by Guinther from the Latin back into Greek. There is no doubt that this kind of falsification was sometimes practised at the time of the revival of learning, when the Greek classics were first printed. If a portion of the Greek text was wanting, but was accessible in a Latin translation, the editor would turn this passage from the Latin into the best Greek he could furnish, and print it without comment as the original.



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had been almost forgotten, and were inaccessible in Western Europe, since very few authors, and of these mostly fragments only, had been translated into Latin. Greek medicine had rapidly declined since the time of Galen. In the Eastern empire he still had followers who compiled from his writings, but no worthy successors. The tradition of surgical skill left by the great Graeco-Roman surgeons was completely lost, and no work on surgery belonging to this period is known which shows any practical familiarity with the art. Even the work of Paulus, in the seventh century, which preserved some of its traditions, does not seem to have been widely known. Scientific medicine was being clouded over by the mystical philosophy and magic of the Orientals, Gnostics, and Neoplatonists. The old and sound methods of treatment were being superseded by charms and incantations with misapplied religious rites.

There were no medical schools in Italy or Western Europe generally, with one exception, the school of Salerno, which was beginning to emerge from obscurity, and even in the eleventh century produced some notable works.

The popular medical authors in this period were the few Greek physicians who were accessible in Latin, and the Latin authors already referred to, of whom perhaps the most popular was Marcellus Empiricus. It is difficult to imagine anything called medicine meaner or less scientific than his work. He was not a physician, but a diligent

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collector of what might be called Roman medical folklore, and of prescriptions of every sort and complexion from all kinds of sources. A large part of his remedies consisted in charms, often of the most puerile kind. Of anatomy, of real pharmacology, of clinical observation, there is not a trace. Plinius, called Valerianus, is probably a fictitious name, but is assigned to a compendium of popular medicine, taken partly from the *Natural History* of the genuine Pliny, partly from other sources. It shows less credulity than the work of Marcellus, but is totally unscientific. Besides these, there were some popular works of natural history, the *Herbarium* of Apuleius, and others, of which we shall speak later.

It is no discredit to the Anglo-Saxon compilers that they failed to construct from these materials any satisfactory body of medical science. But it must also be said that they were quite incapable, from want of experience and of a learned tradition, of supplying anything original from their own resources. There is hardly anything which suggests what we call clinical observation. For example, I have not found feeling the *pulse* mentioned anywhere in the Leech Book, nor is there any account of the appearances presented by the urine, to both of which clinical signs the classical physicians, Greek and Roman, attached great importance. Indeed, definite symptoms of disease of any kind are seldom pointed out.

There is still one other source of medical know-

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ledge from which something in the Leech Book is derived, namely, direct intercourse with the East. One of the most interesting chapters, unfortunately imperfect at the beginning, is that in which are mentioned certain prescriptions sent, doubtless with the drugs prescribed in them, by Helias, Patriarch of Jerusalem, to King Alfred. It is known that Alfred sent envoys to, and had messages from, the Patriarchs of Jerusalem. His biographer, Asser, states distinctly that he himself had seen and read letters, accompanied with presents, which were sent to the king by Abel, Patriarch of Jerusalem[1]. The date of this record is probably about 888 A.D.: so that the account given in the Leech Book is precisely confirmed.

The prescriptions quoted in the Leech Book are for the use of certain drugs, the produce of Syria or adjacent lands, viz. scammony, the product of a Syrian convolvulus; ammoniacum, the native country of which appears to be Armenia; 'spices' from Arabia; dracontian (tragacanth), galbanum, and balsam or balm of Gilead, all indigenous in Asia Minor; and petroleum, which is still, as of old, found in Judaea. The patriarch also strongly recommends 'tyriaca' (θηριακή) or treacle, the famous antidote of Andromachus, of which Galen wrote so largely. This last I have not found mentioned elsewhere in the Anglo-Saxon books, and it was evidently, like the other compound Greek medicines,

[1] *Six English Chronicles*, edited by Giles, London, 1848, p. 78. 'Abel' seems to be merely a mistake for Helias.

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unknown to the Saxons. A white stone, *Lapis alabastrites*, or alabaster, is also highly commended. The chapter is thus summed up at the end: 'All this Dominus Helias, Patriarch of Jerusalem, bid one say to King Alfred [1].'

From the statement of Asser we may infer that the patriarch did not omit to send the drugs at the same time as he sent directions for their use.

Besides all these things, we find in the Leech Book a large number of charms, formulae of incantations, and superstitious rites, though decidedly fewer than in some other books of the Anglo-Saxon medical library. This part of the subject I defer for the present, as also a consideration of the Anglo-Saxon surgery.

SUMMARY

If we analyse the several factors which make up this textbook of medicine used by an Anglo-Saxon practitioner, we find that they are somewhat as follows:—

1. A herbal medicine founded on a wide knowledge of native plants and garden herbs, which was an original achievement of the Anglo-Saxon leeches, and only in part derived from Latin or other books.

2. A body of doctrine derived from classical medicine, chiefly from Latin translations of Greek authors, but not always traceable to its original source.

[1] *A.-S. L.* vol. ii, pp. 175, 289, 291. Scammony is mentioned in two other places, p. 273 (with a test for its good quality) and p. 281.

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3. Some knowledge of surgery is indicated, but its extent cannot be determined. It may have been partly empirical and traditional, partly derived from books.

4. There is a superstitious element, consisting of charms and superstitious rites connected with medicine, much of which may be traced to late Greek and Latin medicine, and to formularies used by the clergy. But an indeterminate amount may represent Teutonic and Celtic folklore.

This subject will be considered in the next lecture.

## PART IV

### THE 'HERBARIUM' OF APULEIUS

The largest in bulk of the Anglo-Saxon Leechdoms, and that which occupies the first volume of Mr. Cockayne's edition, is a translation into Old English of the Latin *Herbarium Apuleii Platonici*, with some other short treatises. No less than four MSS. of this translation have survived, a remarkable number considering how scanty the remains of Anglo-Saxon literature are, and showing that the book enjoyed great popularity. The most remarkable MS. is one in the British Museum, originally in the Cottonian Library, which, though sadly damaged by fire, must have once been a splendid volume, beautifully written, and decorated with a large number of coloured figures of plants and animals [1].

[1] Brit. Mus. Cottonian MSS., Vitellius, C. iii.

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It is believed to have been written about 1000–1050 A.D. One of the three other MSS. was written as late as about 1150. The text as given by Mr. Cockayne is chiefly taken from the first-mentioned copy, with corrections from the others.

The original work is in Latin, and is attributed to a writer (possibly fictitious) called Apuleius Platonicus, who must not be confounded with Apuleius of Madaura, the philosopher and romance writer, author of *The Golden Ass*. The book is believed to date from about the fifth century, though no copy so old as this is known. Some scholars think it was written in Africa. Nothing whatever is known of the supposed author, and the name Apuleius was probably assumed. In the MSS. the name is strangely corrupted, sometimes Apoliensis and sometimes even Plato appearing as the author. The full title is—*Herbarium Apuleii Platonici quod accepit ab Escolapio et Chirone centauro magistro Achillis* ('The *Herbarium* of Apuleius Platonicus, which he received from Aesculapius and Chiron the Centaur, the master of Achilles').

In the Saxon, as in some of the Latin MSS., is a picture showing figures of Escolapius (Aesculapius), Plato, and Centaurus. These three personages are grasping a large volume, which the Centaur and Plato are apparently receiving from Aesculapius, or Plato from the two others. The book consists of 132 chapters, each containing an account of a herb, with a figure, coloured in most copies. The text in the A.-S. version begins with the name of the herb

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in English; but in a few instances the Latin name is merely copied or it is left blank. Then follow in most cases one or two synonyms, and some indication of the locality where the plant is found, e.g. in fields, in ditches, in cultivated places, sandy places, and so on. After this the medicinal uses of the herb are enumerated in several paragraphs.

These uses are for various diseases, and also for the bites of snakes, scorpions, or other venomous creatures. These animals are often represented in the figures. This fact clearly shows the South European (or perhaps African) origin of the work.

There are no descriptions, properly so called, of the herbs. It was intended that they should be identified by the figures.

Besides the *Herbarium*, which occupies the greater part of the book, there are two other shorter treatises appended. One is a collection of chapters on medicinal herbs, with figures, closely resembling the chapters of the *Herbarium*, but mostly with some sort of description of the plant. The English names are often omitted, as if the translator did not know them. Most of these descriptions and medicinal uses are from Dioscorides *On Materia Medica*, directly or indirectly. The resemblance to the Greek author is sometimes close, sometimes slight; but of course this insignificant tract corresponds to a small fragment only of his great work.

Finally, we have a translation of a Latin treatise on medicines derived from animals—*Medicina de*

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*quadrupedibus.* In Latin MSS. the treatise is attributed to Sextus Placitus Papyriensis (or Platonicus), but this name does not seem to occur in the Saxon text. Sextus Placitus was an historical personage who lived according to some authorities in the fourth century, according to others in the sixth after Christ. It is generally accepted that he was the author of this not very valuable treatise, which is largely based upon Pliny, with some superstitious charms, and with other prescriptions which, though not magical, are equally absurd. The English version begins as follows:—

'They say that a king of the Egyptians, hight Idpartus, bid health (or "sent greeting") to Caesar Octavianus his friend, saying, "By many examples I am aware of thy virtues and prudence, and yet I ween that thou never camest to know leechdoms of thus mickle might, such as I learn are those which we obtained from Aesculapius. I then make it known for thy instruction and for that I wist thee worthy of this, to wit, that is, of leechcrafts of wild beasts: so far as it is well said."'

The king Idpartus and the whole message to Octavianus must be pure fiction. Then follow fifty-three chapters on different quadrupeds, each with a picture of the beast, and paragraphs on the medicinal uses of various parts of animals and their excreta.

To understand the real origin of this collection of treatises we must turn to the Latin MSS. of the same text. These are very numerous in most of the great European libraries, more especially in those of Italy, showing the great popularity of the



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work. The British Museum contains at least four Latin MSS., one of them containing Apuleius only. These are all newer than the Anglo-Saxon version [1]. The actual original of the Anglo-Saxon version is therefore still to seek.

The MS. copies of Apuleius, with the additions already mentioned, were multiplied up till the end of the fifteenth century, when the compendium was superseded by the German printed herbals. But a little earlier than the earliest German herbal, the treatise of Apuleius first received the honours of print. An Italian physician, Joh. Philippus de Lignamine, medical adviser to Pope Sixtus IV, and also, like many learned men in those days, a printer, discovered in the library of the Monastery of Monte Cassino a MS. of Apuleius, with coloured figures. This he printed, about the year 1480, at his own press, in a small quarto volume in which the coloured figures of the MS. were represented by rough cuts—the earliest known printed figures of plants [2]. The printed text differs from the Anglo-Saxon version chiefly in containing a large number

[1] I say '*at least* four' because another very beautiful MS. (Sloane 1975), though not bearing quite the same name, contains the Latin text of all the treatises mentioned above. It was written in England in the fourteenth century, and is placed among the 'select' MSS. of the Library, being exhibited in a show-case. The other Latin texts are Harleian 5294, Harl. 4986, Harl. 1585 (from which the above-mentioned Sloane MS. seems to have been derived), Harl. 585 (which is partly Anglo-Saxon, partly Latin), and Additional MS. 17063.

[2] A copy of this extremely rare work may be seen in the British Museum. Other Latin editions are that of Paris, 1528

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of Greek and Latin synonyms of the herbs, which would have been superfluous in the English translation. This text, without the figures, has been several times reprinted.

Comparing the printed book with the MSS., we find that the earliest editor, like the Anglo-Saxon translator, left out some things. To begin with, the first chapter of the *Herbarium* on vettonica (betony) is really an abridged copy of a separate treatise, *De Herba Vettonica*, ascribed, though with little probability, to Antonius Musa, physician to the Emperor Augustus. In this, as in some of the other treatises, are curious prayers or conjurations; one addressed to the Earth, 'Precatio Terrae,' beginning 'Dea Sancta Tellus'; another to all herbs, 'Precatio omnium herbarum'; while the sacred herb vettonica has a prayer all to itself. These passages are sometimes illustrated with figures, such as that of a man praying to the goddess of earth, and mythological subjects, as the god Mercury bringing in each hand a bulb or plant of the sacred herb etmolum or moly (garlic) to a classically robed figure dignified with the name '(H)Omerus author'; meaning, of course, that Homer tells the story[1]. All these things, being purely pagan, were naturally omitted by the Pope's physician, P. de Lignamine (who dedicated his work to a cardinal), as they were

(with other works), and in the Aldine Collection of Latin medical writers, *Medici antiqui omnes qui Latinis literis, etc.*, Venice, 1547. See figures 6 to 9.

[1] See figure 17.

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by the Anglo-Saxon translator; but they may be seen in some Latin MSS. in the British Museum, one, at least, of which was written in England[1].

We also note a curious point, that the *Herbarium* of Apuleius has a colophon 'Explicit Liber Platonis de herbis masculinis feliciter,' and the continuation begins 'Incipit Liber Dioscoridis. In hoc Libro continentur herbae femineae LXI.' But why the first collection should be called *masculine* and the latter *feminine* herbs, I have not been able to discover. We see also that the Anglo-Saxon so-called 'Dioscorides' is not quite perfect.

Another curious point is that the first chapter of the book on 'Medicines from Quadrupeds' is written as a separate treatise in some MSS., with the title *Epistola de Taxone* or *Epistola de Bestiola quam aliqui melem vocant, Quidam vero Taxonem.* That is, 'a letter on the Badger.'

We also observe that in some cases the Saxon translator has expanded the Latin text by the addition of new prescriptions for the use of the drugs.

These details are not important in themselves, but the general conclusion is important, namely, that this collection of treatises on natural history existed as a whole in the Latin, and was translated

[1] See the Harleian MS. 1585, and the later Sloane MS. 1975 founded upon it, which was certainly of English origin, and belonged to a convent. These beautiful works of archaic art are well worth inspection, imperfect as they may be from a botanical point of view.

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as a whole into the early English or Saxon tongue. Hence the supposition that any part was translated direct from the Greek of Dioscorides falls to the ground. Nor can we suppose that the Anglo-Saxon translator compiled his work from many sources. One Latin MS., of a kind of which there are many in European libraries, would have sufficed.

The whole constitutes, according to our ideas, a very poor book of natural history. In the sections on plants there is, strictly speaking, no botany, and the therapeutical part belongs to the lowest period of Roman medicine. The zoology is contemptible.

Nevertheless, the Anglo-Saxon scholars showed their intelligence and good sense in making this poor book their own. Desiring to improve their knowledge of natural history in relation to medicine, they took the best work on the subject they could find in Europe, translated it into the vernacular tongue for general use, carefully copied the pictures by which the plants were to be identified, and whenever it was possible replaced the Latin names by their English equivalents.

Before speaking of the figures, which constitute a very important part of these MSS., it will be well to give some specimens of the text.

RAVENS' LEEK (A Species of Orchis).

'1. This wort, which is called *σατύριον*, and by another name ravens' leek, is produced on high downs, and in hard places, and also in meadows, and in cultivated lands, and in sandy ones.

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'2. For difficult wounds, take roots of this wort, which we named satyrion, and which also some men call priapiscus, and pound together; it cleanseth the wounds and cures the scars.

'3. For sore of eyes, that is, when that one be blear-eyed, take juice of this wort, and smear the eyes therewith; without delay it removes the sore.' (*A.-S. L.* i. 109.)

A figure of this herb is given, evidently an orchis; but the draughtsman so misunderstood it that he has not made the flowers properly attached to the stem. (See fig. 1.)

MUGWORT (*Artemisia vulgaris*).

'1. This wort, which is called artemisia, and by another name mugwort, is produced in stony places, and in sandy ones. Then, if any propose a journey, let him take him in hand this wort artemisia, and let him have it with him, then he will not feel much toil on his journey. And it also puts to flight devil-sickness (*demoniac possession*); and in the house in which one hath it within, it forbiddeth evil leech-crafts, and also it turneth away the (evil) eyes of evil men.

'2. For sore of inwards, take the same wort, and pound it to dust, and mix it with new beer; give it to drink, soon it relieves the sore of the inwards.

'3. For sore of feet, take the same wort and pound it with lard, lay it to the feet; it removes the soreness of the feet.' (*A.-S. L.* i. 103.)

BROWNWORT (*Ceterach officinarum*).

'1. For disease of spleen, take roots of this same wort, which the Greeks name ἀσπλήνιον (*asplenium*), and the Romans *teucrium*, and also the English call brownwort; pound it to small dust; give it to drink in light wine, therewith thou wilt observe a remark-

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able thing (i. e. a wonderful cure). Also it is said that the wort was found out thus:—that is, it once happened that a man scraped (in the Latin *threw out*) intestines with the spleen upon this wort, then soon the spleen clave to this wort, and it quickly consumed the spleen; for which reason some men called it *splenium*, which (spleen) in our language is called the milt. Hence it is said that swine which eat its roots are found to be without a spleen [1].

'2. Some also say that it has a stalk with twigs like hyssop and leaves like beans, hence some men name it by the same name hyssop. The wort is gathered when it is in full blossom. It is of a famed kind in the mountain lands which are named Cilicia and Pisidia.' (*A.-S. L.* i. 159.)

YARROW (*Achillea millefolium*).

'1. Of this wort, which is named *millefolium* and in our language yarrow, it is said that Achilles the 'alderman' (i. e. chieftain) found it out; and he, with this same wort, healed them who were struck and wounded with iron. Also, for that reason, it is named of some men Achillea. With this wort it is said that he also healed a man named Telephos.

'2. For toothache, take a root of this wort, which we named millefolium; give it to eat fasting.

'3. For wounds which are made with iron, take this same wort, pounded with grease; lay it to the wounds; it purgeth and healeth the wounds.

'4. For a swelling take this same wort millefolium pounded with butter; lay it to the swelling.

[1] This extraordinary story is thus told by Apuleius, and comes originally from Pliny (*Nat. Hist.* xxv, 20), who ascribes the discovery of the herb to Teucer. The next paragraph also comes from Pliny. In the Anglo-Saxon version the sense is confused. It only means that some give the same name (*splenium*) to a quite different herb.

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'5. In case that any man with difficulty can pass water, take juice of this same wort with vinegar, give it him to drink; wondrously it healeth.'

There follow in the Anglo-Saxon version, eleven more paragraphs about yarrow, which are not contained in the Latin text. I give only one of them.

'7. If a man's head burst, or a strange (unnatural) swelling appear on it, let him take roots of this same wort, and bind them on his neck; then cometh to him good benefit.' (*A.-S. L.* i. p. 195.)

This last is curious because the use of amulets or *periapts* (that is, drugs merely worn upon the body) is rarely alluded to in Apuleius, and this paragraph was probably an addition by the Saxon translator.

### MANDRAGORA

The last chapter in Apuleius treats of the mandragora or mandrake, a plant of which so many fables have been told. This is not an English plant, and probably at this time was not even cultivated in English gardens, as it was later; so that the Anglo-Saxons had no direct knowledge of it, and only repeated what they read about it in the Latin books. The following is the Anglo-Saxon version:—

MANDRAGORA (MANDRAKE. *Atropa Mandragora*).

'1. This wort, which is named *μανδραγόρας*, is great and illustrious of aspect, and it is beneficial. Thou shalt in this manner take it. When thou comest to it, then thou shalt recognize it by this, that it shineth at night altogether like a lamp. When

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first thou seest its head, then inscribe (Latin text *surround*)[1] thou it instantly with iron, lest it flee from thee; its virtue is so great and so famous that it will immediately flee from an unclean man when he cometh to it, hence, as we said before, do thou "inscribe" it with iron; and thou shalt delve about it so that thou touch it not with the iron, but thou shalt earnestly with an ivory staff delve the earth. And when thou seest its hands and its feet, then tie thou it up. Then take the other end and tie it to a dog's neck, so that the hound be hungry; next cast meat before him so that he may not reach it, except he jerk up the wort with him. Of this wort it is said that it hath so great might, that whatsoever thing diggeth it up shall soon in the same manner be deceived (i. e. shall fall down dead)[2]. Therefore as soon as thou see that it be jerked up, and have possession of it, take it immediately in hand, and twist it, and wring the juice out of its leaves into a glass ampulla (or pitcher), and when need come upon thee that thou shouldst therewith help any man, then help thou him in this manner.

'2. For headache, and in case that a man may not sleep, take the juice, smear the forehead; and the wort also in the same manner relieveth the headache; and also thou wonderest how quickly the sleep cometh.

'4. For podagra, though it be very severe, take of the right hand of this wort and also of the left, of either hand by three pennies' weight; reduce to dust; give to drink in wine for seven days; (the patient) will be healed, not only so that the swelling is allayed,

[1] It is evident that the Anglo-Saxon translation was an error, since the herb was not to be touched with iron. The Latin word is *circumducere*, meaning to make a line round or outside it with iron.

[2] In the Latin text the word is *decipere*, which is evidently a mistake for *decidere* = fall down dead, die.



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but it also healeth the tugging of the sinews and wonderfully healeth both the evils.

'5. For witlessness, that is, for devil-sickness (demoniacal possession), take from the body of the same wort mandragora by weight of three pennies, administer to drink in warm water, as he may find most convenient; soon he will be healed.

'7. If any see some grave mischief in his house, let him take this wort mandragora, as much as he may then have, into the middle of the house; he banisheth all evils out of the house[1].' (*A.-S. L.* i. 245.)

In the Latin edition printed by Philip de Lignamine (about 1480) the directions for digging up the mandrake are omitted, but they are contained in most of the Latin MSS. Some other prescriptions are added, among which is a remarkable one for the use of the herb as an anaesthetic, omitted in the Anglo-Saxon version.

'If any one has to have a limb amputated, or burnt, or cut, let him drink an ounce and a half in wine, and he will sleep so long that the limb may be cut off without pain or feeling.'

This is a very early, perhaps the earliest, notice in a Latin book of surgical anaesthesia, though the original observation came from Dioscorides[2].

The various legends connected with the mandragora can be best understood with the help of the

[1] This doubtless refers to evil spirits.

[2] This prescription was repeated in many mediaeval books up to the *Hortus Sanitatis* of the fifteenth century. Probably the practice was occasionally resorted to; since Johannes Vigo speaks in his *Surgery* of this use of mandragora, but says it was not without great danger. See the English translation of his works, 1571, fol. 193.

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old pictures. We see that the plant had a tap-root, often double (but, as Gerard protests, by no means always so), which suggested the figure of a man—in fact, 'a forked radish with the head curiously carved.' (Possibly this odd description of a man was suggested to Shakespeare by the figure of Mandragora in an old herbal.) Then it was imagined that some specimens were like a man, others like a woman; and botanists made two species[1]. Then the powerful narcotic odour of the fresh root may possibly have sometimes affected the senses, and accordingly the fable sprung up that it was fatal to dig up the root, and an innocent dog was made the victim. Another story was that the semi-human plant, when it was torn up, uttered a shriek, which it was death to hear. Accordingly, the bystanders are sometimes represented as stopping their ears. In some figures, probably the earliest, we see only a transition from a modified root to something like a human form; but in the later figures there is a complete human head with long hair, and the sexes are distinguished. Figures of this kind were made artificially out of various roots, and popularly sold, even in Gerard's time.

But to pursue this subject further would take too long. I will only remark that the fabulous virtues of this plant in relation to sexual matters are not mentioned by the Latin writers (though there is

[1] There are, in fact, two species, but one is not more like a man or a woman than the other.

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a slight allusion to them in Dioscorides), nor by their Anglo-Saxon and mediaeval followers. This particular form of superstition seems to have come from the East[1].

### THE FIGURES OF HERBS

If we compare the series of figures of plants which run through the Latin and English MSS. of Apuleius, we are struck with the fact that they are very frequently copied one from another. This is especially the case in the earlier MSS., while in the later copies, which come down as late as the fifteenth century, there is greater variety. Though it is not possible to trace one uniform series through all the books, it is quite clear that the figures were not generally copied direct from the plants. They were copied from older figures, and these from others older still, so that we should have to go back through several generations of copyists, and probably through several centuries, before we could arrive at the prototype or original picture made by an artist from the original herb. It is strange to think that we may be now looking at figures of plants, many times copied, of which the originals were blooming several centuries ago.

The supposition that there were some ancient drawings from which most of the existing illustra-

[1] For the commonsense view of *mandragora*, see Turner's *Herbal*, 1568, Part II, fol. 46; Gerard's *Herbal*, 1597, p. 280; or Matthiolus's *Commentaries on Dioscorides* (of which there are many editions), under the word. For figures of Mandragora see Figs. 3, 4, 5, 6.

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tions of the *Herbarium* have, so to speak, descended is more than plausible. Botanical illustrations were not unknown to the ancients. Pliny gives the names of three Greek botanists—Crateuas, Dionysius, Metrodorus—who introduced this attractive method of teaching medical botany. 'They printed the likeness of herbs, and wrote under them their effects (and uses).' But Pliny himself remarks on the fallacies introduced by the degeneration of the figures in the hands of copyists [1].

Examples of these ancient botanical illustrations still survive, however, in the Greek MSS. of Dioscorides on Materia Medica, illustrated with coloured figures; of which five are known to exist [2].

The figures in these MSS. are extremely interesting in the history of botany, and are valued as helps

[1] *C. Plinii Naturalis Historia*, lib. xxv, cap. 4. Crateuas is said to have lived in the first century B.C. He is quoted by Galen and Dioscorides, as well as by Pliny. See Gurlt, *Biographisches Lexicon der Aerzte*, vol. vi, p. 887.

[2] Two of these MSS. are in the Imperial Library at Vienna; two at Paris in the Bibliothèque Nationale, one of which is undescribed; one is or was in the Phillipps Library, Cheltenham. One of the Vienna MSS. is known to have been written at the end of the fifth century B.C.; the other is older, but of less certain date. The other MSS. are later. See article by Dr. E. Bonnet, 'Essai de l'identification des plantes médicinales mentionnées par Dioscoride,' *Janus*, April, 1903, p. 169, and following numbers; also Daubeny, *Lectures on Roman Husbandry*, 1857, p. 231. Few of these figures have been published, but a collection of engravings from one of the Vienna MSS. is preserved at the Botanic Garden, Oxford, and a smaller series in the library of the Linnean Society, London. A few are copied in Dr. Daubeny's book.

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in identifying the plants mentioned by Dioscorides, though they have been found less valuable in this respect than was anticipated. Judging from the copies which I have seen, they do not seem to throw any light on the origin of the figures which are found in the MSS. of Apuleius, though the style of art is very similar. The older figures are, however, less conventional.

All these figures of plants have certain general characters in common, by which they differ from modern botanical figures, and exhibit the characters of Graeco-Roman or classical art; showing the way the classical artist went to work in representing objects of natural history. The figures are formal rather than realistic; what we should now call diagrammatic, giving rather the artist's idea of the plant derived from a knowledge of several specimens, than an actual portrait of one specimen. They are very generally symmetrical on both sides and modified into graceful forms. These characters are seen in the Anglo-Saxon copies as well as in the Latin MSS., and this feature should be taken into account in estimating the value of the figures.

The portraits of some plants are at least recognizable; others have departed so far from the original prototype that we can hardly guess what they were meant for. The artists who copied them from one MS. to another seem to have been tempted to show their skill by treating the plant as an artistic object, making it in some cases purely decorative, in others wildly fanciful.

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Now it might seem that the Anglo-Saxon artists, whose skill in drawing, as we know from other examples, was certainly considerable, might have produced better figures if they had copied the plants direct from nature. But before condemning them for contenting themselves with copying old examples, we must consider what the object of introducing these figures was. It was not to illustrate the book by representations of known objects; it was to identify the plants described by the old writers. This could only be done by adhering strictly to the old figures. Had the artist given figures of what he believed to be the plants intended by the old writers, he might have made a wrong identification. Hence simple copying was the only plan which would serve the purpose for which the book was intended, namely, identification. The Anglo-Saxon artists followed the only conscientious, and according to their view, useful method, so that I do not suppose a single figure in the Saxon MS. was, or was intended to be, a direct transcript from nature.

### ENGLISH NAMES OF HERBS

In translating the *Herbarium*, the Anglo-Saxon translators substituted as far as possible native English names for those of the original. In some cases they could only modify or translate the Latin. Thus *Pes leonis* would naturally be rendered 'Lion's foot,' *Lilium* would become 'Lilie,' and so on. Sometimes the translator could find no English name,

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and retained the Latin, or left a blank. In some cases the identification is evidently wrong; but making all these allowances, it is still remarkable for how many plants there was an English name already existing. Many of these still survive, many unfortunately are lost. The first name of a herb in the original book, for instance, *vettonica* or *betonica* is translated 'bishopswort,' where we have now only the modified Latin word 'betony.' The next is *arnoglossa* or *plantago*, rendered 'waybrade' or 'waybroad,' a picturesque name for the broad-leaved weed of waysides and lawns, which we now call by the misleading appellation 'plantain.' *Unfortrædde* ('untrodden to pieces') is an appropriate name for the stubborn weed knotgrass, and *maythe* (mægthe) is more attractive than the modified Greek camomile. Many other instances might be quoted, not merely as philological curiosities, but as showing that the Anglo-Saxons, before they translated Apuleius, had recognized and given English names to a large number of native plants. Similar evidence is supplied by the numerous English names occurring in the other Leech Books, and also in the 'glossaries' or lists giving English equivalents for Latin and Greek names of plants, which are a familiar feature in Old English and Middle English Literature. Of these lists, at least six are known which definitely belong to the Old English or Anglo-Saxon period, being written before the middle of the twelfth century [1].

[1] Earle's *English Plant Names*, Oxford, 1880.

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From all these sources Mr. Cockayne has compiled a list of between 700 and 800 names of plants used in the Anglo-Saxon period[1]. If we deduct from these all of later date than 1150, as well as all purely Latin names or translations (though a few which had become vernacular, such as 'rose,' must be admitted), we find about 500 English names of plants in use during the period named. It would not necessarily follow that the Anglo-Saxons had recognized and named 500 plants, since there must have been some synonyms and some names inaccurately applied, but it shows a very extensive knowledge of herbs.

The point becomes clearer if we compare this number with the number of plants enumerated in other books. The *Herbarium* of Apuleius, with the additions from Dioscorides, gives 185 plants. In a very interesting work by the Rev. G. Henslow, *Medical Works of the Fourteenth Century* (London, 1899), a list is given of names and synonyms of plants mentioned in works of the fourteenth century. This list shows an increasing use of Latin and also of French names. Making deductions similar to those used in the other case, I find the number of English names is something like 400. Certainly there is some falling-off as compared with the Anglo-Saxon period. The earliest herbal printed in Germany, the *Herbarius* of 1484, records only 150 plants. The next, the German *Herbarius* of 1485, gives 380; and the great Latin

[1] Cockayne, *A.-S. L.* vol. iii, p. 311.



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*Hortus Sanitatis* of 1491 has 530, including many foreign plants. There seems to have been no increase in the number of species known to botanists. It is only in the herbals of the sixteenth century, when the science of botany took a new start, that we find a real advance, and an immense number of new species recorded.

The general conclusion to be drawn from all these facts is that the Anglo-Saxons took a keen and genuine interest in the study of plants for medicinal uses. Much of this was doubtless due to the monkish physicians and the herb-gardens of the monasteries, but there must also have been a popular and widespread love of flowers—a national characteristic which may still be recognized in the cottage gardens of the South of England. Along with this there went accurate observation and discrimination, so that these unlearned botanists were able to recognize and name a much larger number of native plants than they could have known through the translated Latin books. Their knowledge of botany was not only much more extensive than has been supposed, but it was original.

It is strange that after the Anglo-Saxon period there was so little progress, the principal change observable in the mediaeval literature of botany being the giving of new names to known plants. Indeed, we cannot help agreeing with the hard saying of Professor Earle, that 'there was a great decadence in botanical knowledge in England between the eleventh and sixteenth centuries.'

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# LECTURE II

## PART I

### ANGLO-SAXON SURGERY

THERE are not many references to surgery in the Anglo-Saxon Leech Books, and there is nothing like a regular treatise on the subject. This would not by any means imply that there was no knowledge of surgery or no regular profession of surgeons. Surgery has always been less connected with book learning, and less dependent upon literature for its maintenance and progress, than has been internal medicine. Surgery, as its name implies, is essentially a handicraft, and may, like other crafts, reach a considerable degree of excellence without possessing a literature. Practical skill in it may be handed on from one generation to another by apprenticeship and tradition without any aid from books. There must be surgeons before there is a systematic art of surgery; there must be an art of surgery before there is a surgical literature. Hence surgical books come late in the development of the profession. It is clear that there were surgeons in England at least from the seventh century onwards, though they had no special name distinguishing them from leeches in general. This is abundantly shown by the historical notices quoted in the former lecture. They had not, however, reached so

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high a stage of development as to produce a surgical literature. Therefore the scanty notices of surgery in the Anglo-Saxon books must be taken as implying a wider range of experience than they actually display; while, on the other hand, when directions for difficult operations are copied from some old author, it may sometimes be the case that the Saxon translator is describing an operation which he never himself performed.

The treatment of *accidents* seems to have been simple: for instance:—

'For broken head, take betony: bruise it and lay it on the head above; then it unites the wound and healeth.'

'Again, for the same: take garden cress, that which waxeth of itself, and is not sown; put it in the nose, that the smell and the juice may get to the head.'

Another prescription for the same is a wort drink made of wallflower and attorlothe (*Panicum crus galli*), and pellitory and wood marche (*Sanicula Europaea*), and brownwort (*Ceterach officinarum*) and betony.

'Make all the worts into a wort drink, and mix therewith the small cleaver (*Galium aparine*) and centaury and waybroad (*Plantago maior*), of all most especially betony; and if the brain be exposed, take the yolk of an egg and mix a little with honey, and fill the wound and swathe up with tow, and so let it alone; and again, after about three days, syringe the wound, and if the hale sound part shall have a red ring about the wound, know thou then that thou mayest not heal it' (*A.-S. L.* ii. 23).

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For broken bones we have the following prescription:—

'If the shanks be broken, take bonewort (banwort; generally interpreted as violet or pansy), pound it, pour the white of an egg out, mingle these together for the man whose shanks are broken.

'For a broken limb, lay this salve on the broken limb, and overlay with elm-rind, apply a splint; again, always renew these till the limb be healed. Clean some elm-rind, and boil it thoroughly, then remove the rind, take ground linseed and brew it up with the drink (decoction) of elm. That shall be a good salve for a broken limb' (*A.-S. L.* ii. 67).

There are several references to flow of synovial fluid 'lith-sēaw' or 'lithule' (joint-juice or joint-oil) from a joint. This implies a wound of the joint, though it is not positively so stated [1]. The remedies for the lesion were such as the following:—

'Burn lithwort (jointwort, sambucus, elder), hound's head (?), and pound them up with roasted apple; mingle all that together; apply it.'

'Take vinegar and sour crumbs of barley loaf and earthworms, mingle together, and bind on; wet the joint with vinegar or with sour ale' (*A.-S. L.* ii. 133–5).

Nothing is said of any further surgical treatment, so we must suppose that the surgery of joints was at a very low ebb.

For dislocations I find only one prescription.

'If a man be wounded on the top of his head and the bone be broken, take sigelwherf (probably

[1] Mr. Cockayne refers to a passage from Alfred's *Laws*, showing that this kind of wound was the subject of special enactment (*A.-S. L.* ii. 132).

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marigold)[1] and white clover plants and woodruff; put into good butter and strain through a cloth.

'2. If the shoulder get up out of place, take the salve, apply a little warm with a feather; it will soon be well with the man' (*A.-S. L.* ii. 327).

But we need not suppose that the surgeons knew nothing of mechanical reduction of dislocations.

For cancer we find the following extraordinary remedies:—

'Take goat's gall and honey, mingle together of both equal parts, apply to the wound.

'For the same:—Burn a fresh hound's head to ashes, apply to the wound. If it will not yield to that, take a man's dung, dry it thoroughly, rub to dust, apply it. If with this thou art not able to cure him, thou mayst never do it by any means' (*A.-S. L.* ii. 329).

For wounds in general there is a very efficient ointment:—

'Work a good wound salve thus:—Take yarrow, and the nether part of woodruff, feldmore (wild carrot), and the nether part of sigelwherf; boil in good butter, wring through a cloth, and let it stand. Pretty well every wound thou mayst cure therewith' (*A.-S. L.* ii. 327).

The most elaborate surgical operation described in the Leech Book of Bald is that for opening an abscess of the liver (Book II, cap. xxii, *A.-S. L.* ii. 207–9).

[1] *Sigelwherf* means the same as *Solsequium* or *Heliotropium*, a plant supposed to turn towards the sun. It is interpreted in glossaries, 'golds,' which might mean the corn marigold or garden marigold (*Calendula*).

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The chapter is headed 'For the sensitive hardness of the Liver.' In the first place, various lotions and fomentations are recommended, the ingredients of which are suggestive of some borrowing from Alexander Trallianus, but the subject is continued in a manner quite different from the treatment recommended by that author. Other 'wort drinks' are prescribed 'if the swelling is become an abscess and bursteth.' If pus is discharged by the urine, diuretics are to be given, and the prognosis is good, since the matter may be got rid of in this way. 'If, however, the swelling and the pus mount up to that degree that it may seem possible for one to cut into it and let it out,' then proceed as follows:—

'First make a salve of culvers' (pigeons') dung[1] and the like, and bathe the part with water and the worts before spoken of.

'When thou understandest that the swelling is growing soft and mild, then touch thou it with the cutting iron, and cut a little and cleverly, so that the blood may come out, lest an evil pouch (or sinus) descend in thither. Do not let too much blood at one time, lest the sick man become too languid or die; but when thou dost prick or cut it, then have a linen cloth ready that thou mayst soon bind up the cut therewith; and when thou wilt again let more, draw the cloth off, let it out a little at a time till it gets dry. And when the wound is clean, then enlarge it that the thirl (or aperture) be not too narrow; but do thou every day syringe through it with a tube, and wash it out by those means; after that, lay thereon what may

[1] This is recommended as an outward application by Paulus Aegineta.

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cleanse the wound. If it turn very impure, cleanse it with honey and draw it again together.'

After this comes a remarkable observation:— 'When the insensible hardening of the liver is of too long duration then it forms a dropsy which cannot be cured.' This evidently refers to cirrhosis of the liver with ascites; and is remarkable because long after this, and up to the seventeenth century, the prevalent belief was that dropsy caused hardening of the internal organs instead of being caused by it. The Saxon text gives, however, the doctrine of the Greek physicians, such as Aretaeus and Alexander.

With regard to the operation itself, I can find no description like it in any Greek or Latin author. Alexander Trallianus does not speak of an operation, nor does Paulus Aegineta nor Galen. Aretaeus speaks of opening an abscess of the liver with a red hot instrument, and the operation is said to be spoken of by Hippocrates (though I have been unable to trace the reference), and the recommendation is repeated by Aëtius. But this is a different operation from that spoken of in the Anglo-Saxon text, and no full description is given by any of the authors named.

Celsus, indeed, says that some people open a *vomica* (abscess) of the liver with a scalpel, but gives no details. Indeed I have not been able to find so elaborate and complete a description of the operation in any ancient writer.

It is clear, then, that this passage was not bor-

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rowed from any of the ancient surgical texts now known to us; and the Saxon writer must have had access to some ancient works which have not survived; unless, indeed, the account was merely based upon the actual experience of a contemporary surgeon. Without saying that this is an impossible supposition, I think we must admit that it is not very probable.

There is an operation for hare-lip mentioned (*A.-S. L.* ii. 57), which, like that for abscess of the liver, seems above the general average of the surgery.

'For hare-lip, pound mastic very small, add the white of egg, and mingle as thou dost vermilion [1], cut with a knife, sew fast with silk, then smear without and in with the salve, ere the silk rot. If it draw together, arrange it with the hand; anoint again soon.'

This isolated fragment of plastic surgery is not described in such a way as to make it clear that the Saxon leech had actually performed the operation or seen it performed. But I have not been able to find the original of the passage in any ancient author.

*Amputations* are spoken of, but seem to have been performed only for gangrene of a limb; and in this limitation the Anglo-Saxons seem to have followed the old Greek surgeons, for neither they, nor their followers the Arabians, nor the mediaeval doctors

[1] This seems to mean as vermilion is mixed with white of egg for painting. In the old painting for decoration of books, white of egg was the medium chiefly employed.



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seem to have generally recommended amputation of a limb for any other lesion.

In the chapter, 'Of blackened and deadened body' (*A.-S. L.* ii. 83) we read, after some description of the condition:—

'If the wan (livid) or red things be come from without, from wounds or cuttings or blows, soon do thou heal those "things" with scarifyings and onlayings (poultices?) of barley, after the manner which leeches well know; thou shalt amend it. If the blackened part be to that degree deadened that no feeling be therein, then must thou cut away all the dead and unfeeling part, as far as the quick, so that there be nought remaining of the dead flesh, which before felt neither iron nor fire. After that one shall heal the wounds[1]'.

After some directions for after treatment, the writer goes on:—

'Apply the leechdoms according as thou seest (the state of) the body. For a great difference there is in the bodies of a man, woman, or child, between that of a daily wright (workman) and that of the idle, between old and young, &c.

'If thou wilt carve off or cut off a limb from a body, then look thou of what sort the place be, and the strength of the place, since some of the places readily rot if one carelessly tends them; some feel the leechdoms earlier, some later. If thou must carve off or cut off an unhealthy limb from a healthy body, then carve thou not it on the edge of the healthy body; but much more cut or carve on the whole and living body; so thou shalt better and readier cure it.'

Nothing is said about any means for arresting

[1] Text is corrupt here. What Cockayne reads 'dolh swa thu' = wounds as thou, must be 'dolhswathu' = wound-traces, and the scribe seems to have missed a line out.

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haemorrhage after the operation. But Haeser (*Gesch. der Medicin*, i. 500) remarks that the surgical writers after Celsus and Galen seldom mentioned these precautions, as if they took them for granted. Therefore, we need not suppose that the Saxon surgeons were quite unacquainted with any methods for stopping bleeding from severed or wounded vessels.

In the treatise called Book III of the Leech Book of Bald, but which really is no part of that work, there is a curious bit of rough surgery.

'If a man's headpan (skull) be "gelenked" (translated *seemingly iron-bound* by the editor), lay the man with face upward, drive two stakes into the ground at the armpits, then lay a plank across his feet, then strike on it thrice with a sledge beetle. It will soon come right' (*A.-S. L.* ii. 343).

It is not quite clear what is meant by the curious term 'gelenked.' We might think of something which produces rigidity of the neck, dislocation of cervical vertebrae, tetanus, or only the familiar 'stiff neck.' With regard to the extraordinary procedure suggested, it would be useless to speculate exactly what was intended. Possibly there was some vague recollection of the benches or other wooden machines, known by such names as the *Scamnum Hippocratis*, the *Plinthium Nilei*, &c., used by the Greek surgeons for reducing dislocations [1].

[1] Figures attempting to reconstruct these machines are given by Vidus Vidius in illustration of a treatise of Oribasius, taken from Heliodorus: De Machinamentis (*Chirurgia e Graeco in*

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This is more intelligible :—

'If a man's bowel be out, pound galluc (comfrey), wring through a cloth into milk warm from the cow, wet thy hands therein, and put back the bowel into the man, sew up with silk, then boil him galluc for nine mornings, except need be for a longer time. Feed him with fresh hens' flesh' (*A.-S. L.* ii. 359).

Comfrey (*Symphytum officinale*) had the reputation of possessing great power in uniting wounds or broken parts; and is still used for that purpose[1] in England.

The actual cautery was used by the Saxon surgeons; thus in a leechdom for wounds we read :—

'If the edges of the wound are too high (granulations?) run them round with a hot iron very lightly, so that the skin may whiten' (*A.-S. L.* ii. 97).

In another place directions are given for healing the sores made by surgical cauteries.

*Latinum conversa*, Paris, 1544, folio). More authentic figures from a MS. of the ninth or tenth century of great interest for the history of Greek surgery are given by H. Schöne in his *Apollonius von Kitium*, &c.; that is an illustrated commentary by a later Greek surgeon on the treatise of Hippocrates on joints (4to, Leipzig, 1896, with thirty-one photographic plates).

[1] Dr. Hamilton Hall, of Tunbridge Wells, has sent me an interesting note on the use of this herb in Sussex. It is thought to be of great use in diagnosis. 'The local *modus* is to scrape the root and put the scrapings (not unlike a dish of horseradish) on the part alleged to be "sprained." If it adhere, there is unquestionable evidence of the sprain; if not, there is no sprain whatever, the patient may suppose. As a matter of fact the scraped-wort poultice does harden very notably on a hot inflamed area, and sticks for a considerable time. Moreover, there is another point. The full story is that there are two comfreys—the pink for a *man*, and the white for a *woman*; and the colour of the flower does, in fact, vary.'

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Bleeding by venesection is of course often referred to; sometimes it is directed that a special vein should be opened. Cupping was also used, and the 'cupping glass' is mentioned. But the operation was also performed with a horn. Rather frequent reference is made to scarifications, especially of the legs, as a substitute for venesection (*A.-S. L.* ii. 4).

The Anglo-Saxons used several kinds of baths. That most frequently mentioned is the 'stone bath,' that is, one in which the water was heated by putting hot stones into it—a method of procuring hot water still used for various rustic purposes at farms and country houses in the present day (*A.-S. L.* ii. 61, 69). Medicated baths are mentioned, and also the medicated vapour bath referred to in my former lecture. Clysters are several times mentioned; and were administered apparently with a horn (*A.-S. L.* ii. 261).

I cannot say more about Anglo-Saxon surgery. The general impression we derive from the books is that it was a mixture of rough empiricism with traditions and some definite documents derived from the surgery of the Greeks. It is not surprising that many passages, which appear to come from some ancient author, cannot be identified; for we know that the literature of the best period of Graeco-Roman surgery, the works of Archigenes, Heliodorus, Leonides, Antyllus (all of whom are more advanced than Celsus, the last and greatest later than Galen), have perished, with the exception of certain fragments preserved in the writings of Oribasius, Aëtius, and others. Possibly these works

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existed in a more perfect state in the tenth century. Possibly also a more minute research than I have been able to make might detect the origin of some of the Anglo-Saxon surgery. But not having been able to consult the most complete texts containing the fragments of these surgical authors, I must leave that point for future inquiry.

## PART II

### CHARMS AND SUPERSTITIOUS MEDICINE

There is one element in the Anglo-Saxon medicine, of which I have deferred the consideration, but which must now be duly appreciated, that is, the *superstitious* element; by which I mean the use of charms, incantations, exorcisms, the wearing of amulets or other magical objects, the employment of ceremonies and religious rites in the gathering or preparation of medicines, and so forth.

There is no doubt much of this kind in the Anglo-Saxon leechdoms, but it has by no means the preponderance which some have assigned to it. There was not more superstition in the Anglo-Saxon medicine than in the contemporary and earlier medicine of other countries. What there was superstitious and magical in the Anglo-Saxon writers was not peculiar to them, but was in part derived from the literature of a much higher and older civilization than theirs, and what was not thus derived might easily be paralleled in those more learned and cultured writings. In fact, one

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might go further and say that such superstition as is found in the Anglo-Saxon medicine has been found in the medicine of most countries and in most ages of the world. With certain exceptions, what we call superstition has generally formed a part of every medical system, and if we look impartially at the various systems of medicine now prevailing in various parts of the globe, we find the same thing; our own European art of healing is the exception. So little has this been regarded, that it is necessary to emphasize the truth that medicine free from superstition is not the rule, but the exception.

One great and brilliant exception, indeed, there has been recorded in the history of medicine. The Greek art of healing for several centuries, from the age of Hippocrates to that of Galen at least, or later, was almost entirely free from supernatural beliefs or superstitious practices. We know that the Hippocratic medicine was developed out of a system practised in the temples of Aesculapius, which was essentially an appeal to unseen and supernatural powers, but it quickly threw off these superstitious elements, and gave to the world an example of medicine free from superstition. Thus did Greek medicine remain for many centuries. In the voluminous writings of Galen, though he was in later times quoted as having countenanced these things, there is no recommendation of charms or magical proceedings of any kind.

Galen, for instance, in the introduction to his

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work on 'Simples,' speaks of a certain Pamphilus, who wrote a book on herbs, that 'he was given to old wives' fables, and certain marvellous Egyptian quackeries, mixed up with incantations used in gathering medicinal herbs; he employed periapts (amulets) and juggleries which were not only useless and outside the art of medicine, but perfectly false; and to discuss these things would be waste of time [1].' The meaning of this is plain enough, and all medical writers of the pure Greek tradition, with their Latin followers, either expressly or tacitly repudiate these magical arts. For instance, Soranus, an eminent writer on medicine and obstetrics, expressly rejects charms and the like; though he says to women in childbirth charms may be sung, for it soothes them and does no harm. This remains true till about the sixth century, as will be shown hereafter.

Moreover, I may observe, in anticipation, that when the Greek medical tradition was revived at the school of Salerno in the tenth century and earlier, this school also was entirely free from superstition. The broad stream of Greek medicine was reduced to a narrow rill, but it was unpolluted [2].

[1] Galen, *De Simplicium Medicamentorum Facultatibus*, &c., lib. vi, Proœmium, Kühn, vol. xi, p. 792.

[2] It is, perhaps, as well to say here that the same is true, broadly speaking, of Arabian medicine, which was, in fact, a version of the Greek. We do not find, in the Arabian medical classics, charms or magical formulae, or reference to evil spirits as causing disease, whatever may have been the popular beliefs on such subjects. Avicenna and others recognized, indeed, the occult powers of certain natural objects and the significance of

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It must not be supposed, however, that there was no superstitious medicine in Greece or in the Roman empire during these centuries; on the contrary, it flourished abundantly, though it belonged to popular, not to learned medicine. In Greece, from the earliest times known to us, we find references to it. In Homer we read that Ulysses, when wounded by a wild boar, was cured by the sons of Autolycus with incantations (*Odyssey* xix. 456), though I believe there is no similar allusion in the *Iliad*. Similar passages may be found in other Greek poets. The passages of the same purport in the Latin poets, Horace, Martial, and others, have often been quoted and need not be repeated.

However, the general belief must be noted that most of the superstitious medicine of Rome and even of Greece was derived from the East. According to Pliny[1], magic, the doctrine of the Magi, originated in Persia, and was founded by Zoroaster: and was brought into Greece by Osthanes, who accompanied Xerxes on his war against the Greeks. Notwithstanding this untoward political association, Osthanes induced the Greeks to accept magic not

their colour and form, and were devoted to alchemy and astrology. Still, as the Arabian medicine began to reign in European medical schools, charms and medical superstitions began to disappear from the works of regular physicians. Alchemy and astrology, baseless pseudo-sciences as they were, at least professed to be founded upon physical laws and the properties of natural things, not upon the capricious actions of supernatural beings.

[1] Plinius, *Naturalis Historia*, lib. xxx, cap. 2, et seq.



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only with zeal, but with a positive mania. Pliny does not say that this was the only source of superstitious medicine, for there were traces of the same in Italy, and more especially in Gaul. In his own day, he says, magical medicine was celebrated in Britain with such striking ceremonies that it might seem as if the Britons had taught it to the Persians. I quoted in the first lecture Pliny's account of the rites used by the Britons in gathering medicinal plants. But while some such belief in mysterious powers and associations of natural objects might be found in many parts of the world, it still remains true that what the Romans called magic, they, in succession to the Greeks, derived from the East. Besides the art of the Magi, there were the astrology of the Babylonians and Egyptians, the Neo-Platonism of Alexandria with its multitudinous demonology, the obscure beliefs of Gnosticism, dealing in charms, spoken, written, or engraved on gems. All these had a share in the vast system of magic or superstitious medicine which gradually pervaded Rome and the Roman empire. The Oriental superstitions had great success. Several of the emperors, Nero, Trajan, and others, fell under its influence; though in the end they tried to suppress it.

Several minor Latin medical writers became infected with the superstitious taint, and introduced magical formulae into their writings; such, for instance, as Serenus Sammonicus, the medical poet, Apuleius Platonicus before mentioned, Sextus Placitus, and above all, Marcellus Empiricus. But

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these writers were not in the direct line of succession of Greek medicine. Pliny, though he expresses great scepticism or utter disbelief in the doctrines of the Magi, has preserved for us a large number of their rites and formulae. This eclecticism makes his *Naturalis Historia* a great storehouse of information on these subjects. Though no longer accepted, as it formerly was, for an infallible authority, this ancient encyclopaedia becomes now of ever-increasing importance to us as the history of science is more studied.

Our concern here is not, of course, with magic or magical medicine in general, which is far too large a subject to be considered now; but only with the relation of these superstitions to the regular or orthodox art of healing, which means here the Greek classical medicine dating from Hippocrates. But a word must be said in explanation of what we understand by superstitions and what by regular medicine.

I hope you will not demand of me a definition of the word 'superstition,' for to frame one would be a difficult task. I take the word in the usual sense, and apply it to medical proceedings and methods belonging to the following classes.

First we have charms and incantations, *carmina* in Latin, *ἐπῳδαί* in Greek; that is, in plain English, *songs*. These forms of words were originally meant to be sung, and very often contain some rime, jingle, or alliteration. The origin of these may perhaps be traced partly to the mere use of pleasing

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sounds and soothing words to lull the pains of disease, as to this day they are used in our lullabies and cradle-songs to lull children to sleep. In old days sick persons of all ages, as well as infants in the cradle, were soothed and comforted by these simple melodies. In our days infants in the cradle only have the benefit of such consoling strains: adults on the sick bed do not demand, and certainly do not receive this sort of consolation.

But this explanation does not carry us very far; and is plainly not of general application. Indeed, many of our modern nursery rimes are relics of literary forms which had once a much deeper and sometimes a more formidable meaning. For a large number of these magical medical formulae have evidently a definite purpose, that of banishing the evil spirits which were imagined to be the authors of disease. The belief that internal maladies due to no visible cause are the work of evil spirits is traceable in the earliest records of ancient medicine which we possess, and is found among uncivilized races in most parts of the world, as the accounts of travellers and investigators clearly prove[1]. It is

[1] The earliest known medical writings are those of the Sumerians, the ancient inhabitants of Mesopotamia, now partially deciphered from cuneiform inscriptions, dating from the fourth or fifth thousand years before Christ. In these are found formulae of conjurations, and accounts of symbolical rites by which the sick were to be freed from diseases. The physician was a seer, astrologer, and interpreter of dreams.

In the Babylonian medicine, every disease was personified as

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evident that we have here one of the most fundamental, perhaps the most universal conception of the origin of internal diseases. The magical formulae framed with the object of coercing evil spirits were banned by the Christian Church, which substituted for them the formulae of exorcism found in all ancient liturgies, and still, I believe, by no means formally repudiated, though seldom employed. The term *exorcista* is still applied to one of the lower grades of ordained persons.

Beside these two origins for charms and the like, there is another factor which is very evident in a great deal of what we call superstitious medicine, namely, a belief in the mysterious powers of natural forces and of natural objects; especially those of the organic world, plants and animals, but also those of inorganic origin, such as the stars of heaven, springs of water, minerals and gems derived from the earth. It was thought that these mysterious influences could be propitiated and brought to render service to mankind by special prayers and forms of words. These prayers and conjurations are in many cases addressed to the deities supposed to rule over these phenomena of nature, but not always so; for such beliefs were not necessarily connected with actual polytheism, and were something apart from the formal religion of

a special demon, who was to be expelled by conjurations or exorcisms. The names of demons were the names of diseases (Von Oefele, in Neuburger und Pagel, *Geschichte der Medizin*, Vol. i, pp. 60, 71, 72).

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the temples. We might call the belief 'Nature-worship,' but that expression must not be taken too literally. What lies at the bottom of it all is a dim belief in some unseen powers, different from the physical properties of nature, but manifested in the external world; and that these forces stand in some mysterious relation to the spiritual nature of man, as the physical forces are related to his bodily frame.

To pursue this vast subject further would be beyond my knowledge and my powers. I must be content with the above superficial glance at what I believe to be the chief sources of what we call medical superstition. The question which concerns us is how these magical elements, banished by the school of Hippocrates from regular medicine, came again to be mingled with it, and to form so important a part of European medicine for many centuries.

There are two Greek writers more especially to whom the responsibility belongs of introducing into classical medicine the magical elements derived from the East, namely, Alexander of Tralles, so often referred to as a great authority with the Anglo-Saxons, and Aëtius of Amida, both of the sixth century. Aëtius was probably the older, but Alexander the more influential. To understand his position we must remember that Alexander was an Asiatic Greek, born at Tralles in Lydia, the son of a physician who was fortunate in a brilliant and highly educated family of sons. Several of the

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brothers were successful professional men, and one, Anthemius, has a place in history as the architect of one of the most memorable buildings in the world, the great Church of St. Sophia at Constantinople. This fact not only shows the high intellectual level of the family, but suggests that it was a Christian family, a conclusion confirmed by some allusions in the writings of Alexander himself. Alexander was a highly educated physician trained in the great traditions of Greek medicine, which was still flourishing and full of resources, though it had ceased to produce any original works, and showed unmistakable signs of decadence. How did he then, a learned and highly gifted man, fall away from the truth, as we should say, and embrace these superstitious errors? It is clear that however much a Hippocratic physician might try to preserve the medical tradition in its purity, he must be greatly influenced by his surroundings. The society in which Alexander lived, from the lowest to the highest classes, believed implicitly in Oriental magic and other superstitions. In medical matters this belief gave rise to a popular medicine dealing with what Alexander calls φυσικά, physical or natural remedies, as distinct from the learned remedies of the regular physicians. To this popular medicine, Alexander, though he generally employed regular and approved remedies, made large concessions, and excused himself for his compliance in the following way. There are many patients, he says, who will not submit to regular medicinal or dietetic treat-

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ment, and hence the physician is obliged to have recourse to 'physical' remedies, for a good physician should be ready to help his patient by any kind of means. But he will only recommend such measures as have been approved by long experience. Alexander defends the use of certain charms by saying that he had proved by experience their efficacy in diseases. Such remedies were, however, only to be used when ordinary measures failed, and were not to be given to any chance patient, but only to those who had faith and could keep a secret (a suspicious precaution). But it would be an act of inhumanity to omit the use of what did so much good. Alexander further excuses himself by quoting a passage from a work of Galen (of which the original is now lost), to show that the master himself did not deny the efficacy of magical remedies:—

'The divine Galen, who had formerly believed charms (ἐπῳδαί) to be of no value, nevertheless, after a long time and great experience, found that they were extremely powerful. Hear then what he says in his treatise *On Medical Treatment in Homer*.'

These are the words of Galen:—

'Some think, as I myself did for a long time, that charms are no better than old wives' fables, but I have become convinced in the course of time, and by manifest evidence, that there is power in them; for I have had experience of their utility to those stung by scorpions, and not less in the case of bones swallowed and sticking in the throat, which were at once expectorated by

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the help of a charm. There are many which are excellent for particular cases; and the charms attain their end.'

These words may have been written by Galen, but it is to be observed that the work from which they are ostensibly taken, *On Medical Treatment in Homer*, is quite unknown except in this reference, and seems to have perished, so that Alexander's quotation cannot be verified. If Galen really wrote thus, it must have been in his old age, and this tardy recantation can hardly weigh against the explicit disavowal found in other places, and the entire absence of any *prescription* of charms in his other writings.

However, it was enough for Alexander, who proceeds in the same passage to say that the most powerful remedy against stone in the kidneys is a ring made of Cyprian copper, on which should be engraved the image of a lion, the moon, and a star; and which should be worn on the little finger or the medicinal (i.e. the ring) finger!

Alexander's writings indeed contain a large number of magical formulae and rites, most of which are probably of Oriental origin, but some were picked up during his travels in Italy and elsewhere and some contain Christian allusions. It seems desirable to give some examples of the superstitious receipts found in this classical Greek writer, to show what kind of material was found in the sources from which the Anglo-Saxons derived much of their medical lore.



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Alexander recommends that medicinal herbs should be gathered with prayers and magical incantations, and special ceremonial rites at special times determined by the position of the heavenly bodies.

Certain parts of animals or plants had wondrous powers if hung round the neck of the patient, or applied to the affected part of the body. The same effect had sacred words, or even a verse of Homer, written on gold or vellum and worn upon the body as an amulet. Along with these went many other beliefs and practices which we call superstitions.

As examples I will quote one or two of Alexander's prescriptions for gout.

The tendons from the legs and claws of a vulture are to be applied to the ankles of the patient affected with gout, taking care that the right foot of the bird is applied to the right foot of the man, and the left to the left.

Again, the small bones from the foot of a hare, hung round the patient's neck, greatly alleviate the pains in the joints; *but the hare must not be killed.*

Some recommend writing the following verse of Homer on a gold leaf while the moon is in the sign of Libra—still better if she is in the sign of Leo:—

τετρήχει δ' ἀγορή, ὑπὸ δὲ στεναχίζετο γαῖα.
(*Iliad*, ii. 95.)

'The assembly was in confusion, and the earth underneath groaned.'

Another charm was to write on a gold leaf, when the moon is waning, the following words, and tie it

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up, with the tendons of a crane, in a packet which the patient was to wear round his ankle:—

'*Mei, threu, moe, phor, teux, za, zon, the, lu, chri, ge, ze, on*, as the sun is kept stable in these words, and is renewed every day, so make this organ firm as it was before, now, now, quickly, quickly!' &c.[1]

Another still more elaborate piece of magic to cure the gout was as follows:—

'Dig round the sacred herb Hyoscyamus before sunset with the thumb and the medical (or third) finger not touching the root, and address it in a solemn invocation—"Sacred herb, I bid thee, I bid thee, to-morrow I summon thee to the house of my patient to stop the rheum of his feet, I conjure thee by the great name of Jaoth, Sabaoth, the God who made the earth solid and the sea to stand still, &c. Take into thyself the spirit and power of the earth, thy mother, and dry up the rheum of this man or this woman.'"

The next morning the herb was to be dug up before sunrise with the bone of a dead animal, taken in the hand and conjured with the sacred names Jaoth, Sabaoth, Adonai, Eloi, sprinkled with salt, and then, with another charm, hung round the gouty patient's neck[2].

These quotations are fair samples of the magical medicine of Alexander; but it must not be supposed that he always prescribed remedies of this kind for gout or for other diseases. On the contrary, the

[1] Heim (*Incantamenta magica Graeca Latina*, 1892, p. 535) explains these monosyllables as representing the twelve signs of the Zodiac; but as there are thirteen words one must be superfluous.

[2] *Alex. Trallianus*, ed. Puschmann, Vol. ii, p. 584.

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greater part of his work is taken up with the ordinary medical treatment; and his recommendations are often very sensible and useful. But we see that the door was thus opened to the wildest fancies and grossest superstitions, such as we find in the Greek successors of Alexander, and still more in their Latin contemporaries. One Latin writer, Marcellus Empiricus, earlier than Alexander, especially abounds in such charms; and it was from his writings, as well as those of the later Greek and Latin medical authors, that the Anglo-Saxons borrowed a good deal of their magical medicine.

I know that it will naturally be asked, whether a great part of these Saxon charms and medical rites are not derived from Teutonic or Celtic medical folklore. The answer to this question is difficult for more reasons than one. It is not easy from the form or contents of a charm to know whether it originated in folklore or in borrowed learning. A great deal of so-called 'folk-medicine' is old-fashioned regular medicine which has sunk down to the level of the unlearned, and has sometimes put on a rustic dress. It is not all so, of course, but many charms and the like collected by students of folklore and called provincial may be traced to Oriental, Greek, or Latin sources. We know that the northern nations had 'runes' or charms concerning herbs, but none of the charms in the Leech Books can be definitely traced to such a source, though there is at least one written in runic

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characters. There is also a very remarkable poem concerning herbs in which Woden is introduced, though it contains also Christian allusions; but this can hardly be called a charm. There are some other curious charms in verse which may be very ancient. The witchcraft of the northern peoples is also well known, but this finds a place in the Leech Books only as an evil sorcery against which charms are given; as there are also against elves, against elf-disease, and for an 'elfshot,' that is, bewitched animal. There is also a remedy (not a charm), against a 'dwarf,' that is, a malignant spirit[1]. Also we have a charm:—'Against every evil rune-lay, and one full of elvish tricks, write this writing in Greek letters—"alpha, omega, Jesum Beronike (St. Veronica),"' &c.

With regard to Celtic popular medicine there is a charm containing unknown words which the editor identifies as Irish, and another described as Scottish (i.e. Gaelic or Irish), but which the editor says appears to belong to no known language (*A.-S. L.* ii. 11, 113).

From these quotations we see that anything in the nature of a *rune-lay* was purposely omitted as being of heathen origin, and hence proscribed by the Church. The whole spirit of the Leech Books generally is Christian, and thus opposed to the old pagan charms and witchcraft. The absence of charms avowedly derived from the old folklore is

[1] *A.-S. L.* i. 139, 365, 369. See also Mr. Cockayne's Introduction, p. xlvii.

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thus easily explained. If there were any such their origin was ignored.

This brings us to the very important question which we must consider for a moment, viz. the attitude of the Church with respect to magic and superstitious medicine generally.

Of course this attitude was one of hostility. All this superstitious medicine was so closely connected with pagan idolatry, native, classical, or Oriental, that the Church could not sanction it; it was thought to be the work of demons and evil spirits. But at the same time the reality and power of these charms and rites were not questioned. These evil powers had to be overcome by the power of the true God. The charms were met by counter-charms. Invocations of Christ and the saints were substituted for the invocations of spirits and the occult powers of nature. Thus it must be said that in their condemnation of the evil powers the clergy maintained an intellectual atmosphere which was eminently favourable to superstition and credulity. This is perhaps the explanation of their want of success in dealing with magic. In the books of penalties for spiritual offences, such as the *Paenitentiale* of Theodore, Archbishop of Canterbury, which is one of the earliest, penalties are imposed upon those who had to do with witchcraft, heathen rites, worship of trees, and other natural objects, and so forth. In the translations of the Latin books of herbs already spoken of, the invocations to the earth, to herbs and the like, were carefully

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omitted, or in some instances erased in the MSS., Christian prayers and benedictions being sometimes substituted. In gathering medicinal herbs, prayers and masses were to be said in place of the old heathen formulae.

For instance, in the Latin MSS. of the *Herbarium* of Apuleius there are, as before mentioned, sometimes found prayers addressed to the earth, to all herbs, and to some special herbs. These are not strictly a part of the treatise of Apuleius, but often prefixed to it, and are of course omitted by the Anglo-Saxon translators. A formula which seems to take its place in some degree is a 'Benedictio Herbarum' found in another place. It is as follows:—

'Omnipotens sempiterne deus qui ab initio mundi omnia instituisti et creasti tam arborum generibus quam herbarum seminibus quibus etiam benedictione tua benedicendo sanxisti eadem nunc benedictione olera aliosque fructus sanctificare ac benedicere digneris ut sumentibus ex eis sanitatem conferant mentis et corporis,' &c. (*A.-S. L.* iii. 79).

We find also prayers called 'Benedictio potus' and 'Benedictio unguenti,' intended to accompany the use of medicines and salves. But these are rather religious than medical, and can hardly be called charms. Mr. Cockayne says there are similar prayers in the *Durham Ritual.*

In such ways did the Church seek to wean the people from the use of heathen magic in medicine, though apparently with little success. For all

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through the middle and later ages, these superstitions were very general, and are by no means extinct even at the present day.

As a specimen of the manner in which this subject was treated by the highest minds among the ecclesiastics I will quote from the noble sermon of St. Eligius, or Eloy, Bishop of Noyon, to which I referred in a former lecture. Though the bishop was not an Anglo-Saxon, he lived at a time which comes within our period, namely, in the seventh century.

'Before all things I declare and testify to you that you shall observe none of the impious customs of the pagans, neither sorcerers, nor diviners, nor soothsayers, nor enchanters, nor must you presume for any cause, or for any sickness, to consult or inquire of them; for he who commits this sin loses unavoidably the grace of baptism. In like manner pay no attention to auguries and sneezings; and when you are on a journey pay no attention to the singing of certain little birds. But whether you are setting out on a journey, or beginning any other work, cross yourself in the name of Christ, and say the Creed and the Lord's Prayer with faith and devotion, and then the enemy can do you no harm. . . . Let no Christian place lights at the temples, or the stones, or at fountains, or at trees, . . . or at places where three ways meet, or presume to make vows. Let none presume to hang amulets on the neck of man or beast; *even though they be made by the clergy, and called holy things, and contain the words of Scripture*; for they are fraught, not with the remedy of Christ, but with the poison of the Devil. Let no one presume to make lustrations, nor to enchant herbs, nor to make flocks pass

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through a hollow tree, or an aperture in the earth; for by so doing he seems to consecrate them to the devil.

'Moreover, as often as any sickness occurs, do not seek enchanters, nor diviners, nor sorcerers, nor soothsayers, or make devilish amulets at fountains or trees, or cross-roads; but let him who is sick trust only to the mercy of God, and receive the sacrament of the body and blood of Christ with faith and devotion; and faithfully seek consecrated oil from the church, wherewith he may anoint his body in the name of Christ, and according to the Apostle, the prayer of faith shall save the sick, and the Lord shall raise him up' (Maitland, *The Dark Ages*, London, 1841, p. 150).

We can hardly approve, indeed the medical profession cannot be expected to approve, of so literal an interpretation of the Epistle of St. James, as to ignore the aid of secular medicine for the sick. But apart from this, nothing could be better than the tone of these injunctions. It must have required some independence of mind to forbid the use of Christian amulets. The superstitions about hollow trees and holes in the earth or in stones were firmly believed in parts of the West of England during the last century, and probably are so to-day[1]. It would have been well if all ecclesiastical authorities had been as enlightened and thorough-going as the good Bishop of Noyon.

[1] See *Popular Romances of the West of England*, or *Drolls, Traditions, and Superstitions of Old Cornwall*, by Robert Hunt, London, 1871, 2nd ed., p. 415.



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### ANGLO-SAXON CHARMS

The number of charms in the Anglo-Saxon leech books taken together is considerable, but they compose only a small portion of each book. In the Leech Book of Bald, of which the two authentic books contain about 160 chapters, some with many paragraphs, including several hundred leechdoms, there are only thirty formulae which can be called 'Charms.' Of these, seventeen are distinctly Christian, while four contain Latin or unknown words, not Christian.

In the so-called Book III (not an integral part of the work), which contains seventy-three chapters, some long, there are twenty-three charms, of which twelve are Christian. The larger proportion is noteworthy. In other collections of leechdoms, the proportion is somewhat larger; but, on the whole, as will be seen, the magical element, to which much importance has been attached, forms really only a very small part of Anglo-Saxon medical literature.

As it seems necessary to adopt some kind of classification, I arrange the Anglo-Saxon charms under the following heads:—

I. Prayers, invocations, or other verbal formulae addressed to the herbs; and special observances, used when gathering them or other natural remedies.

II. Prayers and mystical words repeated over the patient, or written and applied to some part

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of his body as an amulet, with or without material remedies. Such words are often in a foreign tongue, as Latin among those who do not speak it; Greek or Hebrew among the Latins. They are sometimes in an unknown and unintelligible language; like those called by the Greeks *Ἐφέσια γράμματα*, or Ephesian words, the meaning of which phrase it would take too long to explain. But they are sometimes in the vernacular[1].

III. Direct conjurations or exorcisms addressed to diseases as if they were evil spirits.

IV. Narrative charms, that is, anecdotes relating to sacred or legendary personages, who suffered or did something analogous to what the patient is suffering from.

V. Material magic; that is, the attribution of magical powers to certain objects, such as plants or parts of animals, stones and engraved gems; none of these objects being taken or used medicinally, but applied to some part of the patient's body, as amulets or periapts.

VI. Transference of disease by a verbal formula, or a ceremony, to some animal or material object, or in some way to the outside world.

Examples of most of these have been given from Alexander Trallianus. I now give some corresponding passages from the Anglo-Saxon books.

[1] See Heim's *Incantamenta Magica Graeca Latina*, Leipzig, 1892, p. 525.

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## I. CHARMS AND CEREMONIES EMPLOYED IN GATHERING MEDICINAL HERBS, &c.

'1. It has been observed that prayers or invocations addressed to herbs and natural objects are for the most part omitted or avoided by the Anglo-Saxons, when found in heathen authors. It is strange, however, that the Saxons sometimes added words of this kind. For instance, in the *Herbarium Apuleii* is a statement that Artemisia (mugwort) carried in the hands prevents a traveller from becoming tired' (*Herbarium Apuleii*, *A.-S. L.* i. 103).

In the Leech Book of Bald we find the following leechdom:—

'For much travelling overland, lest a man tire:—Let him take mugwort in his hand or put it in his shoe lest he should weary. And when he will pluck it before sunrise, let him say first these words "Tollam te Artemisia ne lassus sim in via," sign it (i. e. with the sign of the Cross) when thou pullest it up' (*A.-S. L.* ii. 155).

The Anglo-Saxons employed many sacred words and ceremonies in gathering herbs. These, in the books we have, are mostly Christian, and seem to have been substituted for the heathen charms, indigenous or classical, formerly used.

For instance:—

'If the worm or the bleeding fig (haemorrhoid) turn downwards, delve round a plant of celandine root and take it with thy two hands turned upwards, and sing over it nine Pater Nosters, and at the ninth, at "Deliver us from evil," snap it up, and take from

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that plant and from others that may be there a little cupful (of juice) and let the man drink it; and let one rub him at a warm fire; it will soon be well with him' (*A.-S. L.* iii. 39).

'For the delirious:—

'Bishopwort, lupin, bonewort, everfern (polypody), githrife (corncockle, gith?) elecampane. When day and night divide, then sing thou in the Church litanies, that is, the names of the hallows (saints) and the Pater Noster. With the song go thou near the worts, and go thrice about them, and when thou takest them go again to church with the same song, and sing twelve masses over them, and over all the drinks which belong to the disease in honour of the twelve apostles' (*A.-S. L.* ii. 139).

'A drink for "Thēor" disease[1]; delve about sour ompre (sorrel dock), sing thrice the Pater Noster, jerk it up; then, while thou sayest *sed libera nos a malo*, take five slices of it and seven peppercorns, bray them together, and while thou be working it, sing twelve times the psalm Miserere mei Deus and Gloria in excelsis Deo and the Pater Noster, and then pour it all over with wine; when day and night divide, then drink the dose and wrap thyself up warm' (*A.-S. L.* ii. 117).

It is evident that this use of Latin prayers implies that the leech who gathered the worts was a clerical person.

The ritual in the following leechdom is very elaborate, and recalls the ceremonies prescribed by Alexander Trallianus in gathering Hyoscyamus. It is for 'elf disease,' that is, for a person bewitched by elves.

'Go on Thursday evening when the sun is set where

[1] See note on p. 48.

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thou knowest that Helenium stands; then sing the Benedicite and Pater Noster and a litany, and stick thy knife into the wort; make it stick fast and go away; go again when day and night divide; at the same time go first to church and cross thyself, and commend thyself to God. Then go in silence, and though anything of an awful nature, or a man meet thee, say not to him any word ere thou come to the wort which thou didst mark the evening before. Then sing the Benedicite and the Pater Noster, and a litany; delve up the wort, let the knife stick in it. Go again as quick as thou canst to church and lay it under the altar with the knife. Let it lie till the sun be up; wash it afterwards, and make into a drink with bishopwort and lichen off a crucifix; boil in milk thrice, thrice pour holy water upon it and sing the Pater Noster, the Credo, and the Gloria in excelsis, and sing upon it a litany, and mark a cross with a sword round it on three sides; and after that let the man drink the wort; soon will it be well with him' (*A.-S. L.* ii. 347).

In the following leechdom pure water is made medicinal by prayers:—

'If wens (? spasms) pain a man at the heart, let a maiden go to a spring which runs due east, and ladle up a cupful, moving the cup with the stream, and sing over it the Creed and Pater Noster, and then pour it into another vessel and ladle up some more, so as to have three cups full. Do so for nine days; soon will it be well with the man' (*A.-S. L.* iii. 75).

It is curious that no directions are given for the patient to drink the water. This observance may have been a relic of the old German and Northern worship of springs, which the clergy, not being able to abolish, sanctified with Christian rites. A similar

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superstition exists, or existed lately, in Cornwall as to whooping cough [1].

The use of natural remedies and of sacred objects is sometimes curiously combined. For instance:—

'Against any poison, put in holy water betony and the small atterlothe, drink the water, and eat the worts.'

'If an adder strike a man, or for whatever (injury) cometh of shots, wash the black snail in holy water; give him to drink [2].'

## II. CHARMS IN THE MORE ORDINARY SENSE, THAT IS, MYSTICAL WORDS PRONOUNCED OR WRITTEN DOWN

Many of these verbal charms in the Anglo-Saxon books are derived from classical or from biblical sources, being generally in Latin, and can hardly be understood without reference to these.

For instance, in many of the Latin charms the essential thing was to name the sick man and his father, as in a tradition preserved by Pliny that the root of nettle was a cure for ague; but the names of the sick man and his parents must be pronounced when it was pulled up [3].

[1] See R. Hunt's *Popular Romances, &c., of the West of England*, 2nd ed., 1871, p. 416.

[2] Holy water was largely used in the preparation of medicines; and even this superstition has survived into modern times. Mr. Hunt, in the work on Cornish superstitions already referred to, says that the water used for baptism is regarded as 'holy water' and much prized. Fonts in country churches used to be locked to prevent people from stealing the water left after a christening, which was wanted to undo spells, i.e. against witchcraft (op. cit., p. 413).

[3] Plinii *Naturalis Historia*, xxii. cap. 16.

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Similar forms of words are found in Marcellus Empiricus, and other Latin authors.

This hint will help us to understand some charms which seem at first sight quite unintelligible; for instance, the following, which is a curious medley of Latin and English:—

'Sing this for toothache after the sun hath gone down:—"Caio laio quaque voaque ofer saeloficia sleah manna wyrm." Then name the man and his father, then say: "Lilumenne," it acheth beyond everything; when it lieth low it cooleth; when on earth it burneth hottest; finit. Amen.' (*A.-S. L.* iii. 8, 9.)

The first two words are for *Gaio Seio*. Gaius Seius was used in Latin charms for 'a certain person,' ὁ δεῖνα, as we should say A or B. Gaius is the fictitious name often used in Roman law books, as John Roe and others used to be in old English law. The feminine *Gaia seia* occurs in a charm in Marcellus Empiricus (cap. xxi. 3)[1]. Probably it had become a mere jingle.

These words look absolutely unmeaning, and are anyhow not translateable; but may be corrupt forms of Latin and Greek, which in the original, were not without meaning. To explain 'wyrm' we should remember that toothache was generally attributed to a worm.

Another class of charms have their origin in misused words from the scriptures or apocryphal Christian writings, the names of the four Evangelists being often used.

[1] See Heim's *Incantamenta magica*, p. 480.

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For instance, in the Leech Book of Bald we have:—

'A drink against spring diseases (i.e. Ague), Feverfue, the herb ram's gall (Menyanthes) fennel, waybroad. Let a man sing many masses over the worts, wet them with ale, put holy water on them, boil very thoroughly, let the sick man drink a large cupful as hot as he may, before the disorder be upon him; name the four Gospellers and a charm and a prayer. Matheus + + Marcus + + Lucas + + Iohannes + + intercedite pro me. Tiecon, Leleloth patron, adiuro vos.'

Again, a godly prayer. 'In nomine domini sit benedictum Beronice Beronicen, et habet in vestimento et in femore suo scriptum rex regum et dominus dominantium' (Rev. xix. 16 (Vulgate)).

Again, a godly prayer. 'In nomine sit benedictum; DEERETH HAND THIN DEERETH HAND THIN "Thine hand vexeth, thine hand vexeth"' (*A.-S. L.* ii. 141).

The first part of this charm needs no explanation, but it is curious to find, along with the four Evangelists, such barbarous names as Tiecon, Leleloth. Mr. Cockayne explains that Leleloth is the name of an Arabian idol. The other is unexplained but evidently they are not Christian names, and point to an Oriental origin for the charm.

In the second godly prayer, the word Beronice means St. Veronica, and refers to the legend of the sacred handkerchief which received the miraculous picture of Christ. This is a favourite name in charms.

In the third prayer the English words given in capitals seem to have been in the original written in Runic characters and are perhaps derived from some old 'Rune-lay.' So that in this one leech-



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dom we have an extraordinary mixture of scriptural names, heathen mythology and old Teutonic folk-lore [1].

The following also comes from the Leech Book of Bald:—

'For stroke of viper, remove from thine ears the wax, and smear around therewith, and say thrice the prayer of St. John:—

Dominus meus et pater et filius et spiritus sanctus, cui omnia subiecta sunt: cui omnis potestas subiecta est et metuit et expavescit; et draco fugit, et silet vipera, et rubeta illa quae dicitur rana quieta torpescit, et scorpius extinguitur,' &c.[2] (*A.-S. L.* ii. 113).

*Charms in an unknown tongue.* Some of the words used in charms are, as has been said, quite unintelligible, e. g.:—

'In case a man or a beast drink a worm, sing the lay hereinafter written in the right ear if it be of male kind; sing it in the left ear if it be of female kind:—

*Gonomil, orgomil, marbumil, marbsai, ramum, tofeth, tengo, docuillo, biran*, &c.'

(I do not quote the whole, as such words convey

[1] Charms containing the names of the four Evangelists were commonly used in the Middle Ages and up to the eighteenth century, if not at the present day. I have lately come across an instance in a charm, one of many, written out and preserved about the year 1713 by a doctor's apprentice in Berkshire, one William Savory, who learned them from his master or from a neighbouring doctor. It recites also the names of three wise men of the East, Gaspar, Melchior, and Balthazar, favourite personages in charms, and other holy names (see *St. Thomas's Hospital Gazette*, vol. xiii, p. 89, May 1903).

[2] Mr. Cockayne says that this prayer comes from the legendary '*Assumptio Sancti Iohannis apostoli.*'

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no sense to the reader). Dr. Bradley informs me that the words are corrupt Irish but are not consecutively intelligible (*A.-S. L.* iii. 11).

The following are from the Leech Book of Bald:—Some of these words are also Irish.

'To stanch blood: some write this, *aegryn, thon, struth, fola, aergrenn tart, struth on, tria,* &c.' (about thirty unintelligible words are given) (*A.-S. L.* ii. 55). These words, or something like them, occur in several charms.

'For flying venom and every venomous swelling [that is for epidemic diseases and for the bubonic plague].

'On a Friday churn butter which has been milked from a neat or hind all of one colour; and let it not be mingled with water. Sing over it nine times a litany, and nine times the Pater Noster, and nine times this incantation:—

'*Acrae, aercrae, aernem, nadre, aercuna, hel, aernem aeradspice,*' &c.

Some of the words here look like corrupted Latin, but cannot be made out. Mr. Cockayne says this charm is said in the table of contents to be *Scottish*, that is Gaelic or Irish, but the words themselves belong to no known language.

The leechdom goes on:—

'Some teach us against bite of adder to speak one word, that is, "Faul"; it may not hurt him.'

'Against bite of snake, if the man procures and eats rind which cometh out of Paradise, no venom will damage him. Then said he that wrote this book that the rind was hard to be gotten.'

This is, I think, the only touch of humour in the Leech Book.

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It should be observed that charms in an unknown tongue were much in use among the ancients. I have given some examples from *Alexander Trallianus*; but they are still more numerous in *Marcellus Empiricus*[1]. The following are examples of these 'Ephesian words':—

A charm against toothache was to repeat the words *Argidam, margidam, sturgidam* seven times on a Tuesday or Thursday when the moon was waning.

For stomach-ache, to press the left thumb upon the stomach and repeat *adam bedam alam betar alam botum.* Another charm consisted in the words:—

*Alabanda Alabandi alambo*, with certain ceremonies.

There are a number of similar formulae, but I have not found any identical with the strange words used in the Anglo-Saxon charms.

One of the most extraordinary examples of the employment of sacred rites in the administration of medicines is the use made of ecclesiastical furniture, such as sacramental vessels and even church bells. This is an example from the Leech Book of Bald:—

'*Against fever disease*:—A man shall write this upon the sacramental paten, and wash it off into the drink with holy water.

+ + + A + + + + + C D + + + + + + + + + +

and sing over it. "In principio erat verbum, &c." (John i. 1). Then wash the writing with holy water

[1] Heim's *Incantamenta magica*, p. 529.

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off the dish into the drink, then sing the Credo, and the Pater Noster, and this lay:—*Beati Immaculati*, the psalm (Ps. cxix) with the twelve prayer psalms.'

(Then follows a peculiar charm which I shall give later.) 'And let each of the two men (the leech and the patient) sip thrice of the water' (*A.-S. L.* ii. 137).

In the same place we find the following:—

'*A drink for a fiend-sick man* (i. e. a demoniac or lunatic) when a devil possesses the man or affects him from within with disease, to be drunk out of a church bell.

'Take githrife, yarrow, betony (and several other worts); work up the drink with clear ale, sing seven masses over the worts, add garlic and holy water, and drip the drink into every drink that he shall afterwards drink; and then let him drink it out of a church bell, and let the mass priest sing this over him after he has drunk it: "Domine sancte pater omnipotens, &c."'

## III. EXORCISM OF DISEASES

Another very curious class of charms is that in which the disease is conjured to depart, sometimes with threats, as if it were an evil spirit. Many such are among the Latin charms given by Marcellus Empiricus, Pliny, and other Latin writers. The belief in diseases being caused by evil spirits has already been touched upon.

I will first give instances from the Latin writers.

Marcellus Empiricus gives for the cure of gout

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what he calls *carmen idioticum*, 'fuge, fuge, podagra de pedibus meis et omnibus membris meis[1].'

*Carmen idioticum* means, of course, a charm used by laymen, a popular charm; but a modern reader might excusably take it in a different sense.

Heim gives from Plinius Valerianus a charm against quartan ague, in which the disease is threatened with the mighty name of Solomon.

'Recede ab illo Gaio Seio[2]; Solomon te sequitur[3].'

With this may be compared the following Anglo-Saxon leechdom:—

'*Against a strange* (or unnatural) *swelling*, sing upon thy leech finger (third finger) a paternoster, and draw a line about the sore and say: *Fuge diabolus, Christus te sequitur; quando natus est Christus, fugit dolor;* and afterwards say another paternoster, and —*fuge diabolus*[4]' (*A.-S. L.* i. 394).

Several exorcisms of fevers and agues occur, as in the following:—

'Contra frigora omnibus horis scribis in carta et cum licio ligas ad collum egroti hora deficiente:—

[1] *Marcellus de Medicamentis*, cap. xxxvi. 70, p. 379, ed. Helmreich.

[2] For an explanation of the words 'Gaio Seio' see above.

[3] Heim, op. cit., p. 479.

[4] The word translated 'strange' is 'uncuthum,' literally 'unknown,' the meaning of which does not correspond to the modern word 'uncouth,' but means weird or supernatural. In the form 'unketh' it occurs in this sense in old English. This interpretation is supported by a superstition prevalent among the Irish peasantry that sudden swellings on the hands or exposed parts are caused by the touch of the hand of a fairy. In the Saxon charm there is evidently an allusion to something of this kind.

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'In nomine domini crucifixi sub Pontio Pilato, per signum crucis Xti, fugite febres, seu frigora cotidiana, seu tertiana vel nocturna [? quartana] a servo Dei N. Septingenta XIV milia angelo(rum) persequentur nos (? vos) + Eugenius, Stephanus, Protacius, Sambucius, Dionisius, Chesilius, et Quiriacus. Ista nomina scribe et super se portet qui patitur.'

'Against chills at all hours of the day write on a paper and bind with a cord on the neck of the patient in the evening the following :—

"In the name of our Lord, crucified under Pontius Pilate, by the sign of the cross of Christ. Fevers or quotidian chills, or tertian, or quartan, depart from the servant of God N. Seven hundred and fourteen thousands of angels will follow you + Eugenius, Stephanus, Protacius, Sambucius, Dionisius, Chesilius, and Quiriacus. Write these names, and let the patient carry them upon him."'

The seven names are doubtless those of early Christian saints[1].

The charm referred to above as recited when drinking the sanctified drink washed off the sacramental paten is very similar to the last quoted. It

[1] Charms of this particular kind do not often appear in mediaeval books, but I have come across one such in a MS. collection of recipes kept for his own use by a physician living in England in the middle of the seventeenth century, whose name does not occur, but who was evidently a highly educated man. It is as follows :—

*Coniuratio Febrium.*

Coniuro vos febres de quacunque natione estis per P. F. et S.S., per admonitionem Christi, per Sanctam Mariam virginem, ut non noceatis huic famulo Dei sed recedatis unde venistis.

Amen . . . a . . . g . . . L . . . a . . . de.

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contains no threats, but many holy names are recited.

'Adiuro vos frigores (frigora) et febres per Deum patrem omnipotentem et per eius filium Iesum Christum, &c. . . . ut recedatis de hoc famulo dei et de corpusculo eius,' &c.[1]

## IV. NARRATIVE CHARMS

A very remarkable class of charms, which in our leechdoms appear to be mostly of Christian origin, are those founded on some narrative or legend, plainly fabulous, but introducing Christian personages and names. There are several examples in Marcellus and other Latin and Greek writers, many of which are of course much older and pre-Christian; but I quote only those given in the Anglo-Saxon books. Several survived in mediaeval and even up to modern times.

[1] I would venture to suggest, though I do not know whether the passage has ever been considered in this light, that these exorcisms may have been founded on a corruption of the passage in Luke, cap. iv, v. 39, where it is said that Christ 'rebuked' the fever. The same word being used in verses 35 and 41; He 'rebuked' the devils.

It is probable that these charms were regarded as exorcisms, which would only be efficacious if pronounced by a cleric, and would be improper in the mouth of a layman. Hence they are rare in strictly medical books, but some survive, I believe, in the manuals for exorcists.

But the earliest exorcisms against diseases, regarded as demons, are found in the early Babylonian medicine (see Note, p. 100).

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Perhaps the most remarkable, or at all events the most absurd of these narrative charms, is one for the toothache.

'*Contra dolorem dentium.*—Christus super marmoreum sedebat; Petrus tristis ante eum stabat, manum ad maxillam tenebat; et interrogabat eum Dominus dicens, quare tristis es Petre? Respondit Petrus et dixit, Domine, dentes mei dolent, et Dominus dixit: Adiuro te migranea vel gutta maligna per patrem et filium et spiritum sanctum et per caelum et terram, et per XX ordines angelorum et per LX prophetas et per XII apostolos et per IV evangelistas, &c. . . . ut non possit diabolus nocere ei nec in dentes nec in aures, nec in palato famulo dei,' &c. (*A.-S. L.* iii. 64).

This extraordinary story is met with in several different forms. I have come across it in an English MS. medicine book of the fourteenth century almost in the same form as here.

It is strange to find a variant in modern English which is current in Cornwall.

*Charm for the toothache.*

Christ passed by his brother's door,
Saw his brother lying on the floor:
What aileth thee, brother?
Pain in the teeth.
Thy teeth shall pain thee no more.
In the name, &c.[1]

The following narrative charm has a special historical interest as showing that the Anglo-Saxons were acquainted with small-pox, and regarded their name 'poccas' as synonymous with 'variola.' Else-

[1] Hunt, *Popular Romances of the West of England*, 2nd ed., 1871, p. 414.



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where there are several leechdoms for 'poccas,' and the word is used as equivalent to 'variola.'

'*For poccas.* Sanctus Nicasius habuit minutam variolam et rogavit Dominum ut quicunque nomen suum secum portaret scriptum . . . Sancte Nicasi presul et martir egregie ora pro me N. peccatore et ab hoc morbo tua intercessione me defende. Amen.'

'St. Nicasius had the small variola, and asked of God that whoever should carry his name written . . . .

'Oh! St. Nicasius, bishop and martyr, pray for me N. a sinner, and by thy intercession defend me from this disease[1].'

Another charm of this class introduces the name of Longinus (or Longius), the traditional name of the soldier who pierced the side of Christ upon the cross.

'*For a stitch.* Write a cross of Christ, and sing thrice over the place these words and a Pater Noster:—

'Longinus miles lancea ponxit dominum et restitit sanguis et recessit dolor' (*A.-S. L.* i. 393).

'Longinus, the soldier, pierced our Lord with a lance, and the blood stopped and the pain ceased.'

This charm is found in the *Compendium Medicinae* of Gilbertus Anglicus, and I have seen it also in mediaeval manuscripts. It seems to have been a very popular charm in the Middle Ages for healing wounds and stanching blood.

*Charm to hasten childbirth.* It is not surprising that wanting other means of hastening birth and

[1] Cockayne, *A.-S. L.* iii. 295, from MS. Cotton. Caligula, A. xv, fol. 125.

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relieving the pains of labour, the Anglo-Saxons had recourse to magical rites and charms, as in the following adjuration to the unborn child:—

'Maria virgo peperit Christum. Elisabet sterilis peperit Iohannem Baptistam. Adiuro te infans si es masculus an femina per patrem et filium et spiritum sanctum ut exeas, et [non[1]] recedas; et ultra, ei non noceas neque insipientiam illi facias. Amen.

'Videns Dominus flentes sorores Lazari ad monumentum lacrimatus est coram Iudeis, et clamabat: —Lazare, veni foras! et prodiit, ligatus manibus et pedibus, qui fuerat quatriduanus mortuus.'

'Write this on wax which has never been applied to any work, and bind it under her right foot' (*A.-S. L.* i. 392).

It may seem extraordinary that the history of a dead man raised to life should be used to hasten the birth of a living child, but this 'Lazarus charm' seems to have been popular in the Middle Ages,

[1] The sense here evidently requires a negative: 'I conjure thee, infant, whether thou be male or female, by the Father, the Son, and the Holy Ghost, that thou come forth, and draw not back, and further that thou injure not the one nor commit any folly against the other. Amen.' [Perhaps it merely means 'that thou do no harm to thy mother.']

'The Lord, seeing the sisters of Lazarus weeping by his tomb, himself wept in sight of the Jews, and cried out, Lazarus! come forth; and he came out, bound hand and foot, who had been four days dead.'

This charm is given by Mr. Cockayne from a Bodleian MS. (Junius 85), of which the age is not stated, but the English part is distinctly of the Anglo-Saxon period.

A very similar one is quoted by Heim from a Latin MS. of the eleventh century written in Germany (*Incantamenta magica*, p. 550).

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and might possibly be found lingering at the present day in some parts of the country.

Another and earlier use of the story of Lazarus may be quoted from Aëtius of Amida, who has been mentioned as one of the first to introduce magic into Greek medicine.

'*To remove a bone sticking in the throat.* Look at the patient and say ἄνελθε ὀστοῦν. "Come up, bone! whether bone or fruit, or whatever else it is; as Jesus Christ raised Lazarus from the tomb, and Jonah out of the whale."'

Another charm is:—'Take hold of the patient's larynx and say: "Blasius the martyr, servant of God, saith, Go up, bone! or go down.[1]"'

## V. MATERIAL MAGIC, OR AMULETS

Besides written charms used as amulets, certain objects, such as parts of animals or plants, precious stones, and gems engraved with mystical devices, were thought to have virtues against disease, if applied to or carried about by the sick man. There are many of these recommended by Alexander Trallianus, Marcellus, and other old writers.

The following occurs in the Leech Book of Bald:—

'*For onfall*[2] (translated 'Fellon'). Catch a fox, strike off the tusk from him while he is alive. Let

[1] Aëtius, *Tetrabiblon*, Book viii. fol. 165, l. 46, ed. Venice, 1534.

[2] This word is translated by Mr. Cockayne 'fellon,' i.e. boil or whitlow, but this is not satisfactory, as the treatment is only by internal medicines and charms without external applications. There is a similar charm in Marcellus Empiricus (cap.

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the fox run away; bind (the tooth) in a fawn's skin; have it upon thee' (*A.-S. L.* ii. 105).

Here are a number of charms for headache:—

'In case a man ache in the head, take the lower part of crosswort, put it on a red fillet, let him bind the head therewith.'

'*For the same*:—Delve up waybroad without iron, ere the rising of the sun, bind the roots about the head with crossworts by a red fillet. He will soon be well.'

'*For the same*:—Seek in the maw of young swallows for some little stones, and mind that they touch neither earth, nor water, nor other stones; look out three of them; sew up three of them in what thou wilt, and put them on the man that hath need: he will soon be well. They are good for headache and eye-troubles, and for temptations of the fiend, and for night visitors (goblins), and for spring disease (ague), and for nightmare, and for fascination, and for evil incantations. They must be big nestlings in which thou shalt find them' (*A.-S. L.* ii. 307).

'*For swollen eyes.* Take a live crab, put his eyes out and put him alive again into water, and put the eyes upon the neck of the man who hath need. He will soon be well' (*A.-S. L.* ii. 307).

The injunction to let the animal which supplied the amulet go alive is found in several instances. An almost similar prescription is given by Marcellus Empiricus (*De Medicamentis*, cap. viii. 51, p. 69, ed.

viii. 129) in which the *tongue* is to be cut out of a living fox and worn as an amulet for *albugo*, i.e. white spots on the eyes. Perhaps the Saxon translator got into some confusion. Also the brain of a fox was used to preserve children from the 'falling sickness.' On the whole we must conclude that the meaning of 'onfall' is uncertain.

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Helmreich, 1889). There are several such prescriptions in the *Medicine from Quadrupeds* of Sextus Placitus, translated by the Anglo-Saxons and referred to in my first lecture. The teeth of a badger are there said to have magic virtues.

The following, from the work just named, is curious, as it is not contained in the original Latin, but seems to have been added by the Saxon translators:—

'*For a fever.* Take the right foot-shank of a dead black hound; hang it on the arm. It shaketh off the fever' (*A.-S. L.* i. 363).

### VI. TRANSFERENCE OF DISEASE BY A VERBAL FORMULA, OR BY A CEREMONY TO SOME ANIMAL OR MATERIAL OBJECT, OR IN SOME WAY TO THE OUTSIDE WORLD

In these observances it was thought necessary that the object to which the disease was transferred should be thrown away, or, if an animal, should be allowed to escape alive or driven away as a sort of scapegoat. Running water, sometimes used for such purposes, obviously fulfils this condition spontaneously.

An instance of making the disease pass into running water is the following curious prescription for some disease of the skin:—

'*For Blæce*[1]. Take goose-grease and the nether end

[1] *Blæce* was some kind of skin disease. It is rendered in one Glossary *vitiligo*, but it is also regarded as equivalent to *lepra* in the old sense, that is the modern *psoriasis*. See Cockayne's Glossary in vol. ii. The word is connected with *bleach*.

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of helenium, and viper's bugloss, bishopswort, and hayrife: pound the four worts well together, wring them, add thereto a spoonful of old soap if you have it, mingle thoroughly a little oil and at night lather it on. Scarify the neck after the setting of the sun, pour silently the blood into running water; after that spit three times, then say: "Have thou this unheal (evil) and depart away with it." Go again by a clean way to the house, and go either way in silence' (*A.-S. L.* ii. 77).

'*For onfall.* Take, to begin, a hazel or an elder stick; write thy name thereon, cut three scores, and fill the name with thy blood; throw it over thy shoulder or between thy thighs into running water, and stand over the man. Cut the scores and do all this in silence' (*A.-S. L.* ii. 105).

We have here a charm combined with throwing away an object:—

'*For flying venom* (i.e. air-borne infection). Make four strokes with an oaken brand towards the four quarters of heaven. Make the brand bloody, throw it away and sing this three times:—

'+ Matheus me ducat + Marcus me
conservet, + Lucas me liberet +
Iohannes me adiuvet semper. Amen.
Contrive [contere] Deus omnem
malum et nequitiam per virtutem
patris et filii et spiritus sancti
sanctifica me Emanuhel ihs xps
libera me ab omnibus invidiis inimici
benedictio domini super caput meum.
potens Deus in omni tempore. Amen'
(*A.-S. L.* iii. 53).

'Matthew, lead me! Mark, preserve me! Luke, deliver me! John, assist me! Lord, crush all evil

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and wickedness by the power of the Father, the Son, and the Holy Ghost, &c.'

### MISCELLANEOUS CHARMS

Besides these special classes there are other charms difficult to classify. An instance is the following *numerical charm*. A similar form of words occurs in many nursery rhymes, and some of these 'counting-out' rhymes have been shown to be of great antiquity.

'*For Kernels* (i.e. scrofulous glands). Nine were Noththe's sisters: then the nine came to be eight, and the eight seven, and the seven six, and the six five, and the five four, and the four three, and the three two, and the two one, and the one none. This may be medicine for thee from kernels, and from scrofulles, and from worm, and from every mischief' (*A.-S. L.* iii. 63).

Who Noththe was is unexplained. Perhaps the charm was derived from a similar one recorded by Marcellus Empiricus. He recommends, to get rid of 'glands,' to repeat at night or evening the following:—*novem glandulae sorores, octo glandulae sorores, etc.* down to *una glandula soror: novem fiunt glandulae* ending with *nulla fit glandula*[1].

The latest form of the charm I know is a Cornish rhyme.

[1] Marcellus, *de Medicamentis*, cap. xv. 102, p. 151. Possibly 'Noththe' was originally some word corresponding to *glandula*, such as *nodus*, which was mistaken for a proper name.

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*Charm for a tetter.*

'Tetter, tetter, thou hast nine brothers,
God bless the flesh and preserve the bone,
Perish thou tetter and be thou gone.
In the name, &c.
Tetter, Tetter, thou hast eight brothers,'

and so on, till tetter, having no brother, is imperatively ordered to begone[1].

Among miscellaneous charms are these:—

'In case a man be month sick (lunatic), take skin of mere-swine (porpoise); make it into a whip. Swinge him therewith; soon will he be well. Amen' (*A.-S. L.* ii. 335).

'If a man is going to fight with his foe, let him seethe swallow nestlings in wine, or in spring water; then let him eat them before the fight' (*A.-S. L.* ii. 155).

'*Against a woman's chatter.* Taste at night fasting a radish; that day the chatter cannot harm thee' (*A.-S. L.* ii. 343).

This seems ludicrous; but the word translated chatter, *Gemædlan*, must really mean something mischievous or harmful. The sense probably is: 'Against a witch's spells.'

## A LAY OF THE VIRTUES OF WORTS

In the collection called *Lacnunga* or recipes, printed in the third volume of Cockayne's *Leechdoms*, we find (p. 31), besides ordinary charms, some

[1] Hunt, *Popular Romances of the West of England*, 2nd ed., p. 414.



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remarkable verses relating to herbs. The MS. from which these are taken (B. M. Harleian MS. 585), is a miscellaneous collection, described in the old catalogue as 'Farrago medicamentorum et incantationum sive carminum, diversis manibus sed vetustis.' Hence it is not a complete book, but a medley of receipts in Latin and English, so that there is nothing in the book itself to show the origin of this curious poem, in which there is a remarkable mixture of heathen and Christian ideas.

Professor Skeat, who has kindly given me some information about the poem, says that 'it is an old *heathen* charm preserved down to Christian times, when allusions to Christianity would be possible. The dialect is Wessex, or South Saxon, generally called Anglo-Saxon; not Midland and not Northern. The MS. seems to be late tenth century; but it is a reminiscence of something older.'

The poem is a 'lay' in the usual alliterative Anglo-Saxon metre, addressed to nine sacred worts (though one is a tree), viz. mugwort, waybroad (*Plantago*), stime (lamb's cress), atterlothe (*Panicum crus galli*), maythen (camomile), wergulu (nettle), crab-apple, chervil, and fennel.

Mr. Cockayne gives a metrical translation of the lay in alliterative lines, of which I give the first portion, with a few trifling alterations to make it more intelligible; though I may thus have sometimes a little interfered with the metre.

'Have a mind thou mugwort,
What thou didst mention,

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What thou didst prepare
At Regenmeld [1]
Thou hightest una,
The eldest of worts.
Thou hast might against three
And against thirty.

Thou art good against venom,
And against vile things that fly,
Mighty against the loathed ones
That rove through the land.'

The last two lines appear to refer to epidemic diseases.

Why an Anglo-Saxon should have so much reverence for the humble mugwort we do not know; but it was a sacred herb among the Greeks, taking its name 'Artemisia' from Artemis, who assisted women in childbirth. For this reason it was sometimes called *Herba matrum*, and sometimes, by a curious inversion, *Mater herbarum*.

The other worts are addressed in turn thus:—

'Thou waybroad, mother of worts.' Stime is spoken of thus: 'Stime hight this wort; on stone she grew, standeth against venom.' 'Atterlothe is the wort which fought against worm (snake); this avails for venom.' Of maythen it is said that 'never for flying ill fatally fell man, since maythen was given for medicine.'

But the most remarkable passage is the account given of wergulu [2], which I will give at length.

[1] This is a place-name, perhaps mythical (Dr. Bradley).

[2] 'Wergulu' is translated 'crab apple' by Mr. Cockayne, but in a list on the next page it is replaced by 'nettle.' Dr. Bradley writes: 'Wergulu seems to be the feminine of *wærgol* = accursed

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'This is the wort which wergulu hight;
This did the seal send
Over the sea's ridge
Of other poison
The malice to mend.
These nine plants
'Gainst nine poisons.

'A worm came sneaking,
It bit a man.
Then took up Woden
Nine wondrous twigs.
He smote the nadder
Till it flew in nine bits
There did apple and poison
Bring about that it [sc. the nadder]
Nevermore entered house.'

The meaning of this second passage evidently is that Woden with nine sticks of the crab tree slew some 'worm,' i. e. adder. This may be a legend from the northern mythology, but of this I can say nothing. The use of the sacred number nine in several passages is notable.

The two remaining worts, chervil and fennel, are spoken of as 'two mighty ones.' 'These worts the Lord created, "witty" (i. e. wise and skilful) as he is.'

The conclusion is that these nine worts avail against nine exiles from glory [1], against nine venoms and flying vile things, against the red venom, the stinking venom, &c., against water blister, against

(preserved only in *wærgolnyss* = maledictio. There is no reason to render it crab-apple, or apple at all.'

[1] Meaning nine devils (Cockayne). The phrase suggests fallen angels.

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thorn blister, &c., against any venoms which come from any quarter, and so forth.

Near the end the name of Christ occurs, but the sense is very obscure.

This extraordinary composition has not the form of a charm, but still, it is directed to be sung in the same way as a charm and with the same intention.

But what makes it notable is the remarkable mingling of beliefs and different kinds of learning. The beginning suggests some knowledge of classical botany, such as we find in other Anglo-Saxon books. The story of Woden belongs to Northern mythology; and finally we have Christian belief in the mention of Christ. This combination of diverse elements is in fact characteristic of Anglo-Saxon medicine generally, and more especially of their herbal medicines. In this we find, as I have tried to show, a traditional popular knowledge of herbs, with further acquisitions derived from classical medicine and from magic; all this being sifted, corrected, and dominated by the formularies and beliefs of the Christian clergy.

I cannot say more on this subject of charms and magical medicine, though the subject is certainly very interesting. As we have seen, some part of the Anglo-Saxon beliefs on these matters may be traced back to classical sources, and, beyond them, to Oriental magic. It is probable that, if we knew more about it, we should find the roots of other portions in the old folk-lore of the Teutonic and

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Celtic peoples, but of this I am not competent to speak. Another field of research lies in the subsequent history of these magical words and ceremonies. I believe that on investigation it would be found that many of them survived all through the Middle Ages and longer. Some will be found to have endured, in spite of popular education and scientific medicine, to the present day.

Of these survivals I have been able only to bring together a few scattered instances, but the subject would well repay investigation by those who are conversant with popular traditions and provincial customs not yet quite obsolete. Probably no very small number of persons are even now, with more or less credulity, repeating the words and performing the rites in which our Anglo-Saxon ancestors placed implicit confidence.

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## PART III

### THE TREATISE ΠΕΡΙ ΔΙΔΑΞΕΩΝ

There is one treatise in the Anglo-Saxon medical library very different in character and origin from the rest which requires special mention. It has the Greek title *Περὶ διδάξεων*, 'of teachings,' which appears to mean 'of medical doctrines' or 'schools of medicine.' This title is only appropriate, however, to the first chapter of the book; the remainder consists of prescriptions for a number of ailments, beginning with the head and proceeding downwards, as in the Leech Book and in many other medical treatises, making in all sixty-six chapters. It has been shown by Herr Max Löweneck[1], who has published a new edition of the work from the same MS. in the British Museum as that edited by Mr. Cockayne, that it is an abstract of, or in part translated from, a Latin treatise by a writer of the school of Salerno, who lived in the eleventh century, Petrocellus or Petronius. The title of his treatise is *Practica Petrocelli Salernitani*. It has been printed, though apparently from an imperfect copy, by De Renzi, in the collection called *Collectio Salernitana*, vol. iv (Naples, 1856). The Latin and English are both printed in Herr Löweneck's edition, so that they can be easily compared. There are also some indications that the treatise was indebted in part

[1] *Erlanger Beiträge zur englischen Philologie*, No. xii; *Περὶ διδάξεων, eine Sammlung von Rezepten in englischer Sprache*, herausgegeben von Max Löweneck, Erlangen, 1896.

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to another writer of the same school, Gariopontus. Both these writers lived and wrote before the middle of the eleventh century, which was an important epoch in the School of Salerno.

It is, therefore, clear that the Anglo-Saxon compiler was acquainted with works of the School of Salerno belonging to that period, and, without entering fully into the subject, I must say a few words about what this School of Salerno was.

The origin of this, the oldest school of medicine in modern Europe, and indeed the earliest European university, is still obscure, and cannot be certainly assigned to any definite date. The one thing certain is that there had been living there from what were called, even in the eleventh century, ancient times, a group of physicians who not only practised but taught their profession. The reason for this concentration of medical art in a small place was that, being situated in a mild and salubrious climate on the coast of Italy, south of Naples, Salerno had a great reputation as a health resort, to which patients flocked not only from Italy but from other parts of Europe. As the reputation of its doctors increased, students also collected there to learn their profession. In this way, gradually and informally, a school of medicine grew up, as a school might conceivably have grown up in other popular health resorts had there been no universities or other recognized centres of learning. There was, however, some kind of organization, with a Provost or Prior at its head; and a more complete official recognition was given

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to the school by Frederick II, King of Sicily, in 1231.

At the time we are now speaking of, in the eleventh century, the absence of other important medical schools in Europe made Salerno the one eminent school of the healing art in Western Europe, and it only lost this pre-eminence through the rise of the University of Montpellier. This is the simple explanation, which it is necessary to emphasize because a different but erroneous theory has found its way into standard historical works. This theory ascribes the foundation to Saracen teachers who are supposed to have introduced into Italy the Arabian medicine; or to the monk Constantine the African, who was the first to make known that Arabian medicine to the western world. But there is no foundation for the belief that the origin of the Salernitan school was due to the Arabians or to their interpreter Constantine. The Arabian medicine was indeed introduced by Constantine at a definite time, after the middle of the eleventh century; but at that time the school was already celebrated, and had produced medical works still extant, which show no trace of Arabian influence. Nor is there any better ground for another theory, that Salerno was an ecclesiastical foundation. The one fact that among the early teachers of the school we find the names of Jews, and of women, as well as of ecclesiastics is sufficient to refute this theory. Into the further history of Salerno I cannot enter, but must refer those who desire more information



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to Mr. Rashdall's admirable *History of European Universities* [1].

If we say that this and other Salernitan books of the time were based upon the teaching of Hippocrates, it may convey an impression of more direct following and closer conformity than really exist. The teachers of Salerno were eminently practical; they took from the Greek books what was useful for practice, and useful especially for treatment, neglecting the theoretical side, and did not pay much attention to symptoms or diagnosis. What profess to be quotations from Hippocrates are absurdly inaccurate, and the Greek words often so badly spelt as to be beyond recognition.

Now it will be asked, where did the early teachers of Salerno get their knowledge; and what kind of medicine did they teach? The answer is, that their doctrine was a direct survival of the old Greek medicine, and especially of the teachings of Hippocrates, who was so much honoured at Salerno that the school was popularly called *Civitas Hippocratica*. Galen was not much quoted, though his authority was great, and the later Greek physicians of Asia Minor, and Byzantium, such as Aëtius and Alexander, whom I have before referred to as great authorities with the Anglo-Saxons, were on the

[1] *The Universities of Europe in the Middle Ages*, by Hastings Rashdall, Oxford, 1895, vol. i, ch. iii. See also *L'École de Salerne*, ed. Saint-Marc et Daremberg, Paris, 1880. For the original sources, see De Renzi, *Storia documentata della Scuola medica di Salerno*, 2nd ed., Naples, 1857; and *Collectio Salernitana*, five volumes, Naples, 1852, et seq.

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whole less recognized. Of the Latin medical writers they were influenced only by Caelius Aurelianus, the chief Latin writer of the sect of the 'methodists.' It is also very noteworthy that the Salernitan writers of the first period were entirely uncontaminated by the superstitious medicine which had invaded Europe from the East; and nothing like charms or magical rites can be found in their works. The school of Salerno was thus a survival of the Greek medicine lasting into the Middle Ages; it was the bridge between the old medicine and the new.

So much it seems desirable to say, in order to show what was the nature of the medical doctrine contained in the old books of Salerno, which the Anglo-Saxons embraced with their usual receptiveness, and translated into their vernacular English. It will be seen that this treatise 'Peri Didaxeon' differs very widely from the rest of the Anglo-Saxon medical library. It seems possible that had the old English school not been violently cut short by the Norman invasion, it might have entered on a new phase, tinctured by the medicine of Salerno. But this could not be; and, moreover, the Salernitan medicine itself, immediately after the time we are now speaking of, was profoundly altered by the introduction of the Arabic versions of the Greek medical classics. On the other hand, it is conceivable that this book, which exists only in a single manuscript, may have been merely the work of one individual translator; and not have been widely known.

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The differences between this and the other Anglo-Saxon Leech Books are very striking. Although, like the others, it is little more than a collection of receipts, the prescriptions are notable for the small number of drugs contained in them, thus contrasting with the profuse polypharmacy of the old Anglo-Saxon leechdoms. The herbs prescribed are mostly such as would occur in Southern Europe, and though some of these were Northern herbs also, we miss the profusion of native English herbs in which the old leeches delighted. A few oriental drugs are mentioned. The pharmacy is generally very simple; and, as might be expected, there is an entire absence of charms and superstitious rites.

On examining this curious treatise more closely, we must confirm the important discovery of Löweneck, that a great part of it is based upon the Latin treatise called *Practica* of the Salernitan physician Petrocellus already mentioned. But this does not account for the whole of the English book. The order of the chapters is different, and there are some passages not to be found in that writer; while in some places the English text gives a fuller reading than is to be found in the Latin. One curious fact is that certain Greek words occur in the English version which are not found in Petrocellus. For instance, we find a word, *κεφαλοπονία*, or pain of the head, meaning nearly the same as *cephalaea*, or headache. This, with other unusual words, occurs in another Salernitan work of the same period, the *Passionarius* of Gariopontus, showing that it was

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a term current in the school of Salerno. The word is not classical, or at least cannot be found in our Greek dictionaries, and, so far as I know, is not used by Hippocrates or Galen.

We must now give a few extracts.

The prologue from which the book takes its name, though not really a part of it, deals with the history of medicine, and as this is a subject which naturally interests us, we will quote it in full.

'Here beginneth the book *Περὶ Διδάξεων*, that is, the setting forth for how many years leechcraft was hidden, and the learned leeches sagaciously investigated about the ascertaining of it. The earliest was Apollo, and his son Aesculapius, and Asclepios; and Asclepios was uncle of Hippocrates; these four earliest invented the building up of leechcrafts about fifteen hundred years after Noah's flood in the days of Artaxerxes, who was king of the Persians; they revealed the light of the leechcrafts. We know that Apollo first invented *methodicam*, that is, the irons, when one healeth men with knives, and Aesculapius *empiricam*, that is, the leechening (or medical use) of leechcrafts, and Asclepios *loicam* (*logicam*), that is, the observance of the law and the life, and Hippocrates *theoricam*, that is, the foreseeing of the sicknesses [1].

'Then Plato and Aristoteles, the very learned philosophers, followed after these the aforesaid leeches, and they said that there are four humours in the human body; inasmuch as there are also in the rainbow [?]; that is, the *liquid* (or phlegm) in the head, and the *blood* in the breast; and the rough (or red) *bile* in the inwards, and the *black bile* within the (gall) bladder. And each of them ruleth for three

[1] The rest of this chapter is not contained in the Latin text of Petrocellus, at least in this form.

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months. That is from the 18th Calends January to the 8th Cal. April the phlegm in the head is waxing,' and so on.

As the other days are not correctly stated I will only give the sense, which is that from the winter solstice to the vernal equinox, phlegm increases; from the latter to midsummer, the blood; from that time to the autumnal equinox, the red bile; from that to the winter solstice again, the black bile. That is, broadly, the four humours dominate in winter, spring, summer, and autumn respectively. This doctrine is found in Petrocellus and many old writers; it is part of the celebrated old doctrine of the 'humours,' the foundation of the humoral pathology, but is not elsewhere expounded in Anglo-Saxon medicine.

This curious sketch of the history of medicine is also found prefixed in a MS. in the British Museum [1] to an anonymous treatise which appears to be identical with the *Practica* of Petrocellus. It is also given, though not in the same words, by Isidore of Seville in his *Etymologiae*, from whom it may possibly have been derived [2].

The matter of the extract will not bear, and hardly deserves, criticism. The most remarkable error is mistaking Asclepios and Aesculapius for two different persons.

The rest of the book consists of a collection of

[1] MS. Harl. 4977; also in Sloane 2839.

[2] *S. Isidori Hispalensis Episcopi Libri Etymologiarum* lib. iv; *De Medicina*, cap. 3; *De Inventoribus Eius*, ed. Venice, 1483, fol. 20.

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remedies for various diseases, beginning with those for the head. The first chapter is headed '*For humours*' (i. e. of the head):—

'Thus shall one work the salve for "humours," and thus shall they be healed. Take twenty shillings weight of litharge, and twenty shillings weight of new lime, and half a sextarius of vinegar, and four shillings weight of oil of myrtle, and mingle together, and rub them thoroughly up together with the vinegar, and then take some other oil, and mingle therewith and smear the sore therewith[1].'

This is in fact an ointment of acetate of lead.

There is a remarkable mingling of languages in the following prescription:—

*Contra glaucomata.* For dimness of eyes.

'This shall be for dimness of eyes, which the Greeks call *glaucomata*. Take of woman's milk three spoonfuls, and celandine *id est* celidonia juice one spoonful, and aloes and crocus, safran *gallice* and mingle them together, &c.' (*A.-S. L.* iii. 97).

This shows that the writer copied some Greek words, himself wrote Latin, and knew that crocus was called *safran* in French. The latter fragment of knowledge is intelligible if we remember that his version was written after the Norman conquest. The

[1] The word which I have translated 'humours,' *oman*, is rendered by Mr. Cockayne in all places 'erysipelas,' but evidently this is too narrow an interpretation. It means moist eruptions on the skin, still often popularly called *humours*. In this passage it means probably impetigo of the scalp, as appears from the Latin of Petrocellus: 'Hoc tamen proprium ad achoras adiutorium est quod recipe: Lytargiri ʒ xx et calcem vivam cum aceto tere et supermitte oleum et utere,' *Practica Petrocelli*, cap. 12; *Collectio Salernitana*, vol. iv, p. 196.

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Latin text is much shorter, only prescribing the same remedies *ad caliginem*, without giving any Greek name to the disease.

There is an extraordinary mistranslation in the following prescription for nyctalopia:—

'*For those who cannot see from sunrise to sunset.* For nectalopas (*νυκτάλωπας*), that is, in our own language, the men who are able to see nothing after the rising of the sun till he go again to his setting. This is the leechcraft which thereto belongeth. Take a *kneecap* (or *knee bone*) *of a buck* and roast it, and, when the roast sweats, then take the sweat and therewith smear the eyes, and after that let him eat the same roast; and then take fresh asses' dung and squeeze it, and smear the eyes therewith, and it will soon be better with them' (*A.-S. L.* iii. 99).

The words here translated 'kneecap of a buck' are in the Latin *epar urricinum* (or *ericinum*), the liver of a hedgehog. This extraordinary blunder seems inexplicable[1].

This is one of the prescriptions for which no equivalent can be found in the Latin:—

'*For affections of the tongue.* This leechcraft shall

[1] The Latin text of Petrocellus is as follows:—'*Ad Noctilopas.* Ad noctilopas oculorum, id est, qui post solis ortum usque ad occasum videre non possunt. Epar urricinum assum fiat, et ex humore qui inde defluit, dum assatur, oculos inunge, et ipsum dabis ad manducandum; et asinino fimo per lintheum colato perunges' (*Practica Petrocelli*; *Collectio Salernitana*, vol. iv, p. 202). It is curious that 'nyctalopia' is here used, as it has been by most modern writers, for *day blindness*; whereas the ancients generally used the term for *night blindness* (see remarks by Mr. Tweedy in Quain's *Dictionary of Medicine*, article 'Nyctalopia'). The error may, perhaps, have started with the writers of the school of Salerno.

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be done for men in whom the string under the tongue is badly swollen; and through the string first every disorder cometh on the man. Then take thou first the kernel that is within the peach, and kernel of wild cucumber and colewort stalk; pound them together and cut the string under the tongue and put the powder in; and it will soon be better with him' (*A.-S. L.* iii. 103).

Though we do not know the original of this, the mention of peach-stones and wild cucumber makes it probable that the prescription was of Italian origin.

The following is an example of a simple prescription:—

'*Ad acidiva.* For *acidiva*, that is, the hot water which shooteth up out of the breast, and at whiles out of the maw. Then shall he (the patient) drink five handfuls of salt water, and again take seed of wormwood, and seethe it in water, and mingle it with wine, and let the man drink it; also take three or five peppercorns, and let him eat them. Again take betony, one shilling's weight, and seethe in water, and give him to drink fasting. Again take rue and pound it, and then lay it in vinegar, and give him to drink fasting. Also take seed of lovage, a handful, and let him eat it[1]' (*A.-S. L.* iii. 129).

[1] The corresponding passage in Petrocellus is:—'Accidiva vel carbunculus coquitur in pectore vel in stomacho quasi aqua calida; pacientes autem aque salse bibant ciatos V; mitigat dolorem,' etc. All the drugs named in the English text are mentioned, except the last (Coll. Salern. iv, p. 223, § 47, *De Saliva*). The description corresponds to an attack of flatulence and heartburn, though it is strange to find *carbunculus* used of an internal disorder. The word *accidiva* seems to be a synonym of *accidentia*. In Low Latin this was used for 'malady' as well as 'misfortune' (=morbus, infortunium, *maladie accidentelle*. Migne,



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The rest of the book must be lightly passed over. It contains a good many Greek names for diseases, many of them very incorrectly spelt, some indeed which look like Greek being quite unintelligible. There are also references to, and even what profess to be quotations from Hippocrates, which, however, are very inaccurate. For instance, a long passage begins with the statement that, according to Hippocrates, some bodies have *more* veins than others, and that the body is warmer in those that have *more* veins than in those which have fewer. The real sense is that some bodies have wider veins than others[1]. This seems to show that the translator was not very strong in Latin. (*A.-S. L.* iii. 143.)

## COMPARISON OF THE SALERNITAN 'PRACTICA' WITH THE SAXON LEECH BOOK

Before leaving the *Practica* of Petrocellus of Salerno, it may be interesting to compare with it our earliest original medical textbook, the Leech Book of Bald and Cild, and see if the one has any great superiority over the other. In making this comparison it is only fair to remember that the Anglo-Saxon treatise was written about a century earlier.

The books are alike in this, that neither can be

*Lexicon Med. et Inf. Latin*). Perhaps the writer thought there was some connexion with *acidus*. At least Mr. Cockayne seems to have fallen into this error in translating it 'acidity.'

[1] Hippocrates, in the second book of the *Epidemics*, speaks of those who have wide veins; but says nothing about their being warmer than others (Hippocrates, ed. Kühn, vol. iii, p. 433).

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called original, except in the sense of an original compilation, derived from several different sources. Each consists mainly of a collection of medical receipts, with hardly any general exposition, and only scanty references to pathology and symptoms.

The first point that strikes one in which the Salernitan book has a clear superiority over the Anglo-Saxon, is the complete freedom of the former from the magic and superstition which tainted the Anglo-Saxon and all other European medicine of the time. This is a most important and praiseworthy feature in the School of Salerno, which placed that School not only above the Anglo-Saxon leeches, but also above the contemporary Greek physicians of the Eastern Empire, and above Mediaeval medicine in Europe for two centuries or more.

Apart from this, there is considerable similarity between the two books. The Anglo-Saxons, like the Salernitans, borrowed largely from the old Greek medicine, adding thereto from their own knowledge and experience. Both apparently knew the Greek through Latin versions; but the Anglo-Saxons, though they fell into some strange errors, made more copious and, generally, more valuable extracts than the Salernitans, whose references to Hippocrates and Galen are so marvellously inaccurate as sometimes to appear almost fictitious.

In addition to this, the Anglo-Saxons had their old indigenous herbal medicine; while the Salernitans had traditions handed down through many generations of practical physicians. The Saxons had a much

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wider knowledge of herbs, and disposed of a larger Materia Medica than the doctors of Salerno, whose Pharmacopoeia seems to have been somewhat limited.

On the other hand the Salernitans show a more intelligent selection of drugs, and perhaps were wise in using only a few; at least they were right in combining a few only in one prescription. Their formulae are clear, simple, and written on a uniform system which implies traditional skill and culture. The Anglo-Saxon leechdoms are often obscure, cumbrous, and composed on no regular system, using a large number of drugs at once. This last error, indeed, was not peculiar to them; for equally complicated prescriptions were used by English and Continental physicians up to comparatively recent times. But with greater resources than the Salernitans, the Anglo-Saxons certainly showed less skill in making use of them.

Taking one thing with another, we cannot say that, apart from the baneful influence of superstition, the old English Leech Book of the tenth century was inferior to the Latin Salernitan treatise of the eleventh. No treatise of the School of Salerno contemporaneous with the Leech Book is known, so that the Anglo-Saxons had the credit of priority. Their Leech Book was the first medical treatise written in Western Europe which can be said to belong to modern history, that is, which was produced after the decadence and decline of the classical medicine, which belongs to ancient history.

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Admitting that it is impossible to draw the line between ancient and modern, and recognizing also the many crudities and imperfections of our earliest English work on medicine, it seems fair to regard it, in a sense, as the embryo of modern English medicine, and at all events, the earliest medical treatise produced by any of the modern nations of Europe.

### LAST PERIOD OF ANGLO-SAXON MEDICINE

I have said that we have no materials for a continuous history of Anglo-Saxon medicine. We are guided from one epoch to another, with wide intervals, mainly by the fragmentary remains of medical literature. Therefore we are unable to say whether English medicine changed its character as time went on, in the latter part of the Anglo-Saxon rule, or under the first Norman kings. We know that, even before the Conquest, there was increasing intercourse between England and the continent, especially Normandy. The influence of Norman culture and habits was considerable, and increased during the reign of Edward the Confessor, especially in ecclesiastical matters. But I cannot find evidence of any such influence in medical science, in which the Normans had little or nothing to teach the English. Beyond the one or two French words found in the last of the old English medical books, there is nothing Norman in the Anglo-Saxon medicine.

There is, however, one occurrence recorded in the

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reign of Edward the Confessor, which, perhaps, has some significance, namely, that the last of the old Anglo-Saxon kings chose as his personal physician Baldwin, a French monk of St. Denis, afterwards Abbot of Bury St. Edmunds.

This choice was only in accordance with the well-known partiality of Edward the Confessor for Norman or French culture; but shows perhaps that the old Anglo-Saxon medicine was going out of favour in high quarters. I have not been able to discover the names of the physicians of any earlier Saxon kings, nor any evidence that there was any definite office called that of Royal Physician. Baldwin is, therefore, the first Royal Physician of whom I can find any definite record. He continued to discharge the same functions as physician to William the Conqueror.

### HEALING BY THE ROYAL TOUCH

There is one question of medical interest connected with the reign of Edward the Confessor, that is the alleged miraculous healing by that monarch of scrofula, called in later times the King's evil. It is commonly stated that the sainted King first displayed the peculiar power claimed for the Kings of England of curing a patient afflicted with this disease, and founded the special ceremony or service of the 'Healing' afterwards used. But the story of King Edward's having cured a patient with this disease by his touch, is first found in the *Gesta Regum* of William of Malmesbury, written some

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eighty years later; and even there no special stress is laid upon this case, which is only one of several miraculous cures ascribed to the King. The story has the familiar features of the legends of miracles of healing by the Anglo-Saxon ecclesiastics, saints or kings, as we find them in the histories and chronicles from Bede onwards. There is, therefore, no real historical evidence to connect Edward the Confessor with the introduction of healing by the royal touch, and we are relieved from the obligation to discuss further what is in itself a very interesting subject[1].

## CONCLUSION

When in reading the life of some eminent man we come near to the record of his death, it is not without a certain feeling of melancholy; though the event may be well known to us, and happened long ago. So in approaching the close of Anglo-Saxon medicine we feel that we cannot part without regret from a national school of science which had done much and had promised still more.

As we have seen, the old English medicine was not immediately crushed by the Norman Conquest,

[1] William Beckett, an able surgeon of the time of George I, seems to have been the first seriously to criticize these stories in his tract on *Touching for the cure of the King's evil* (London, 1722), where he gives several original documents. Why one particular disease, scrofula, came to be regarded as specially amenable to cure by the royal touch, is not shown by Beckett, and, so far as I know, has never been satisfactorily explained.

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any more than the old English literature. The Anglo-Saxon medical school still continued to be productive till the middle of the twelfth century; and this was also the final date of the last historical record in old English, the Anglo-Saxon Chronicle, of which the last entry was made in the year 1154. After this the old English ceased to be a literary language, and ceased also to be the language of science.

Thus it is easy to see why the Anglo-Saxon medicine, though not destroyed, was neglected and forgotten. The Normans, being unable to read the old English books, regarded them as useless lumber. Their own learned works were written exclusively in Latin, the universal learned language of the continent. Moreover, as is well known, the English monks, who must have constituted a large proportion of the leeches, were often turned out of their monasteries to make room for Norman and French votaries. Thus the Norman reigned in the schools, and Latin, with which the invaders were more conversant than the English were, prevailed universally. When the gates were once opened the Latin world came in like a flood, under which the old English literature and science were submerged.

I cannot pretend to estimate the far-reaching results of thus bringing in continental culture to the insular English. But I must venture to say that, in medicine at least, this did not mean the introduction of higher culture or deeper learning. The Norman physicians had little or nothing to teach the English.

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They had more regular schools of medicine; but whether they were better practitioners we cannot say. As to their actual knowledge, they were at that time merely living on the remnants of Greek and Latin medicine, which the Anglo-Saxons also had known how to assimilate. In knowledge of herbs they must have been inferior to the English. No new element was brought into medical science till the introduction of Latin versions of Arabian medical works, and of the Arabic translations from the Greek, transformed the whole of European medicine; and this change was not effected till more than a century after the Norman Conquest.

The old English book-language emerged again, as we know, after its temporary eclipse by French and Latin, and gave birth to our great English literature. But the old English medicine never rose again. When a national medical literature appeared again in England, in the works of such men as Gilbert, Gaddesden, and John of Arderne, it was written almost entirely in Latin.

We can, however, trace some survival of the old Anglo-Saxon medicine throughout the Middle Ages in the works of popular medicine, written in English, and known as Medicine Books or Leech Books, of which a large number survive, in manuscript, in the British Museum and elsewhere. Few of them have been printed[1].

[1] I know only the *Mittelenglisches Medizinbuch*, edited by F. Heinrich, Halle, 1896, 8vo, and *Medical Works of the Fourteenth Century*, brought out by the Rev. George Henslow, London,



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Like the old leechdoms, they consist merely of collections of receipts, recommending herbs and other drugs, with a large number of charms. Many of the herbal prescriptions and of the charms can be traced back to the Anglo-Saxon Leech Books. Nor did this tradition die out in the Middle Ages. We find an obscure herbal medicine, distinct from the more learned medicine of the regular doctors, still flourishing in the sixteenth century and after the introduction of printing, preserved in the obscurer books called Herbals (to be distinguished from the learned herbals of Turner, Lyte, and Gerarde). In the seventeenth century Culpepper and his followers, though they repudiated charms, were the successors of the herbalists. Even in our own day there exists a popular herbal medicine, strangely combined with the use of charms and magical ceremonies of very ancient origin, which still holds its place in popular belief. In this corrupt and undignified form we may still trace some features of the old Anglo-Saxon medicine.

1899, 4to, with some texts of later date, published by the Early English Text Society. Some receipts were printed in Wright and Halliwell, *Reliquiae Antiquae*, 1841–3, 2 vols.

Oxford: Printed at the Clarendon Press, by Horace Hart, M.A.

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FIG. 1. Raven's Leek, or Satyrion = Orchis, from Anglo-Saxon MS. version of the *Herbarium* of Apuleius (B. Mus. Cotton, Vitellius C. iii, fol. 27). *A.-S. L.*, Vol. I, p. 109. See p. 69.

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FIG. 2. The Medicinal Squill (Scilla maritima), miscalled 'Gladden.' From the A.-S. Apuleius, fol. 40. *A.-S. L.*, Vol. I, p. 145.

FIG. 3. Mandragora, Mandrake, with the dog used to pull it up. A simple and probably early form of the legend. From A.-S. Apuleius, fol. 57. *A.-S. L.*, Vol. I, p. 245. See p. 73.

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FIG. 4. Mandragora, with the dog, as improved by an English artist. From B. Mus. MS. Sloane 1975, thirteenth century. Copied from figure in MS. Harley 1585. See p. 66 (note), p. 68 (note), and p. 78.

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FIG. 5. Mandragora, with the dog, and two figures carrying implements, probably for digging up the plant. From the B. Mus. Latin MS. of Apuleius, written in twelfth century, Harley 5294, fol. 43.

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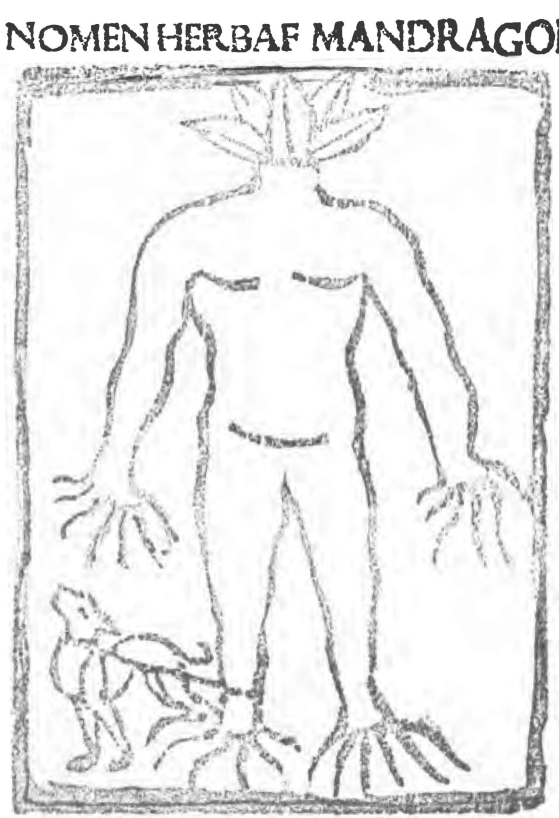


FIG. 6. Mandragora. From the printed edition of the *Herbarium* of Apuleius (Rome, circa 1480). Probably a traditional copy of a very early drawing. See p. 66.

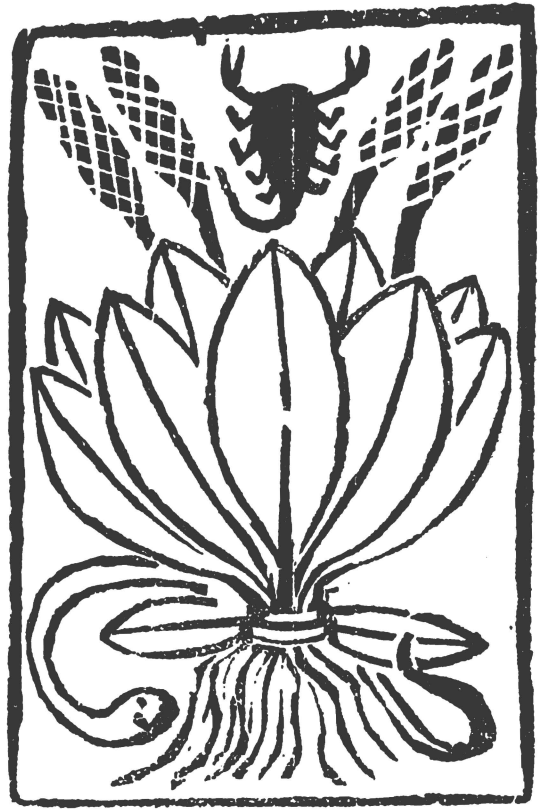

FIG. 7. Plantago, Plantain, from the same book. The snake and scorpion are introduced because the plant was thought to be good against their bites. *A.-S. L.*, Vol. I, p. 81.

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NOMEN HERBAE OLYXATRVM:

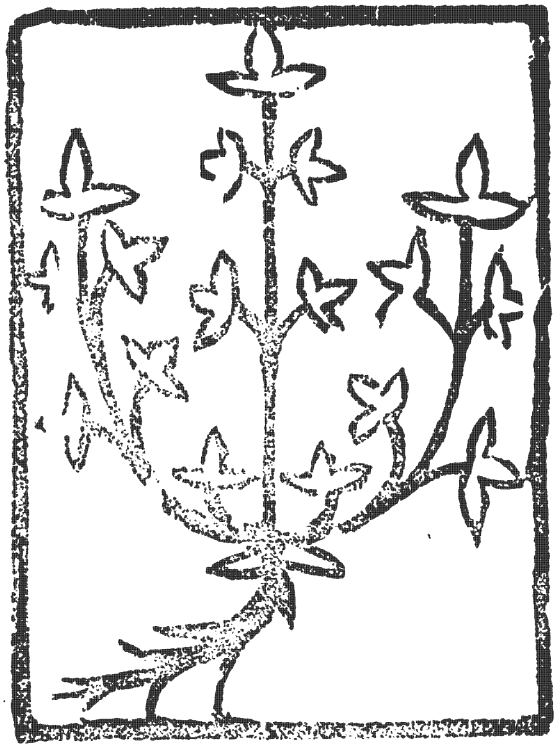

FIG. 8. Olyxatrum; probably meant for Olusatrum, i.e. Smyrnium olusatrum, Alexanders. From the printed Apuleius. *A.-S. L.*, Vol. I, p. 223.

HERBA ORBICVLARIS. I. RAPVRA:

FIG. 9. Orbicularis; probably meant for Cyclamen Europaeum, Sowbread. From printed Apuleius. *A.-S. L.*, Vol. I, p. 111.

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FIG. 10. Herb called Heliotropion, or Solago minor, difficult to identify; with a scorpion and snake fighting. From the A-S. MS. Apuleius, fol. 40. *A.-S. L.*, Vol. I, p. 169.

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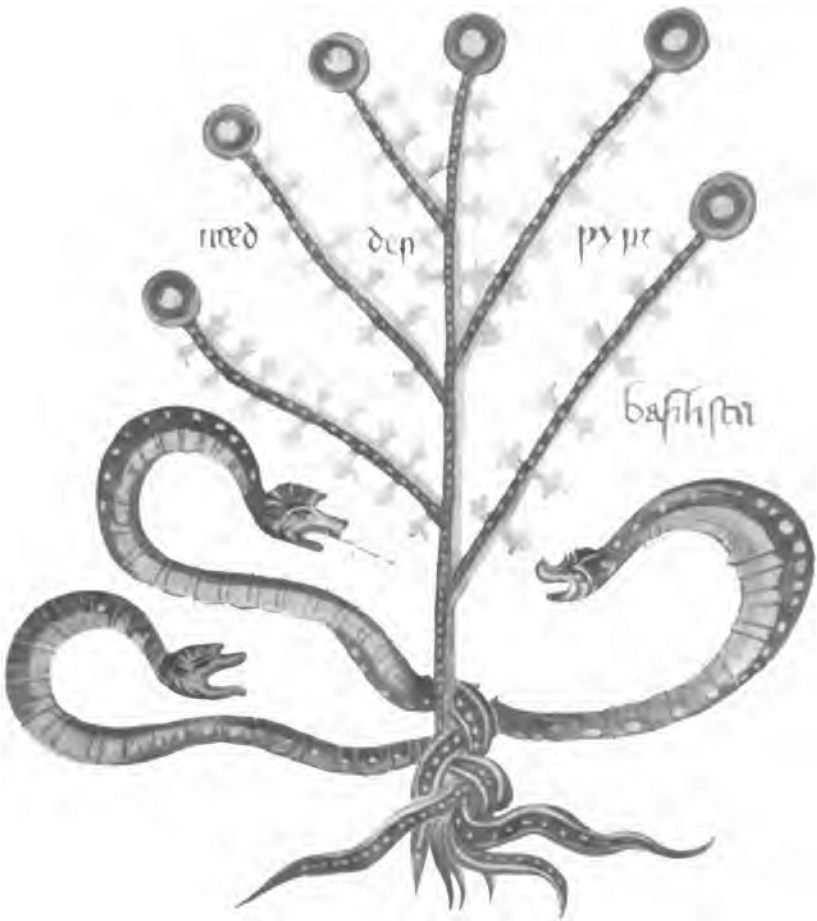

FIG. 11. 'Nadder Wort,' Basilisca, or Regia, a herb not identified; with three royal serpents or basilisks. For description see *A.-S. L.*, Vol. I, p. 243. From the A.-S. Apuleius, fol. 57.

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FIG. 12. Herb, meant for White Hellebore, but more like Scilla, Squill. In the continuation of *Herbarium* from Dioscorides, &c. See p. 64. *A.-S. L.*, Vol. I, p. 287. From A.-S. Apuleius, fol. 66 b.

FIG. 13. Scorpion holding a strange winged creature intended for a venomous spider (phalangion). In the continuation from Dioscorides. *A.-S. L.*, Vol. I, p. 253. From A.-S. Apuleius, fol. 59.

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FIG. 14. Sigelhweorfa, or Heliotropion. (Difficult to identify, perhaps not English.) From A.-S. Apuleius, fol. 36. See *A.-S. L.*, Vol. I, p. 153.

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FIG. 15. Gladden, or Gladiolus, meaning probably the Yellow Flag, but more like the Blue Iris, Iris Florentina. From the A.-S. Apuleius, fol. 43 b. *A.-S. L.*, Vol. I, p. 183.

FIG. 16. Mecon, or Red Poppy. From Latin MS. of Apuleius, B. Mus. Harley 5294, fol. 53. Not in A.-S. version.

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FIG. 17. Mercury bringing the Sacred Moly, or Immoluun (Allium Moly). The figure on the left is Homer. From the Latin Apuleius, B. Mus. MS. Harley 1585, col. 106. *A.-S. L.*, Vol. I, p. 153. See p. 67.

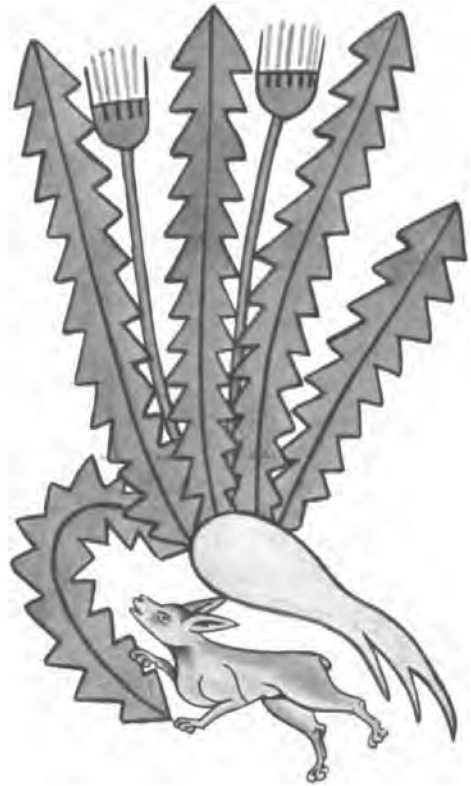

FIG. 18. Lactuca leporina, called 'hare's lettuce,' but looks more like dandelion, with a hare eating it. From same MS. as Fig. 17, col. 180. *A.-S. L.*, Vol. I, p. 227.

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FIG. 17. Mercury bringing the Sacred Moly, or Immolum (Allium Moly). The figure on the left is Homer. From the Latin Apuleius. B. Mus. MS. Harley 1585, col. 106. *A.-S. L.*, Vol. I, p. 153. See p. 67.

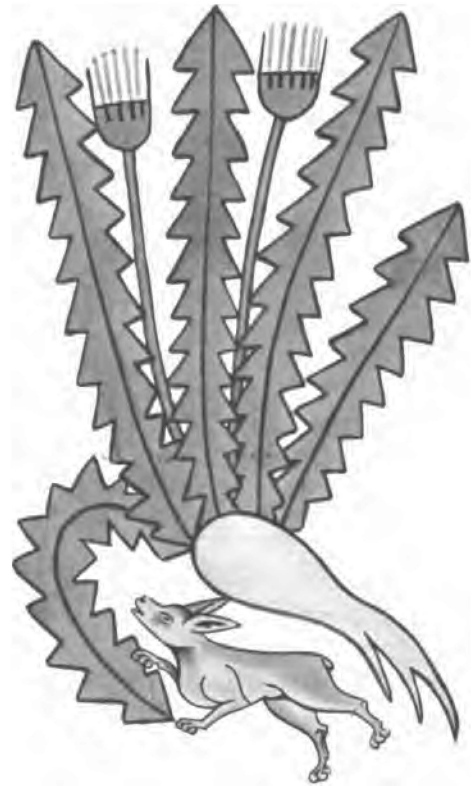

FIG. 18. Lactuca leporina, called 'hare's lettuce,' but looks more like dandelion, with a hare eating it. From same MS. as Fig. 17, col. 180. *A.-S. L.*, Vol. I, p. 227.

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FIG. 22. Cynoglossum, Hound's-tongue; probably a mistake for Arnoglossum, Plantain; with snake attacking an animal, apparently a rat. From B. Mus. MS. Harley 5294, fol. 37. *A.-S. L.*, Vol. I, p. 211.

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FIG. 19. Pyonia, Peony. From MS. Harley 1585. *A.-S. L.*, Vol. I, p. 169.

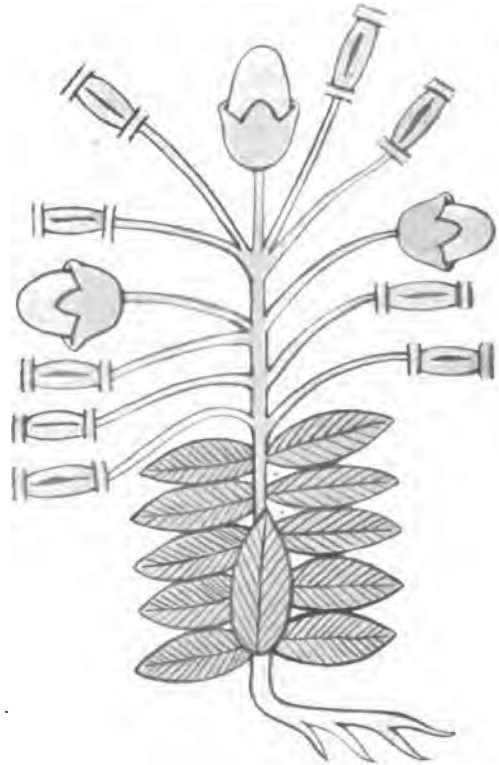

FIG. 20. Papaver silvaticum (Poppy). From same MS. as Fig. 19, col. 110. *A.-S. L.*, Vol. I, p. 157.

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FIG. 21. Aristolochia, or 'Smear Wort'; A. Clematitis. From MS. Harley 1585, col. 70. *A.-S. L.*, Vol. I, p. 115. This is a climbing plant, spread out on a sort of frame; and illustrates the endeavour of the artist to turn the figure into a decorative object, with consequent loss of realism; as also seen in Figs. 19 and 20. See p. 78.

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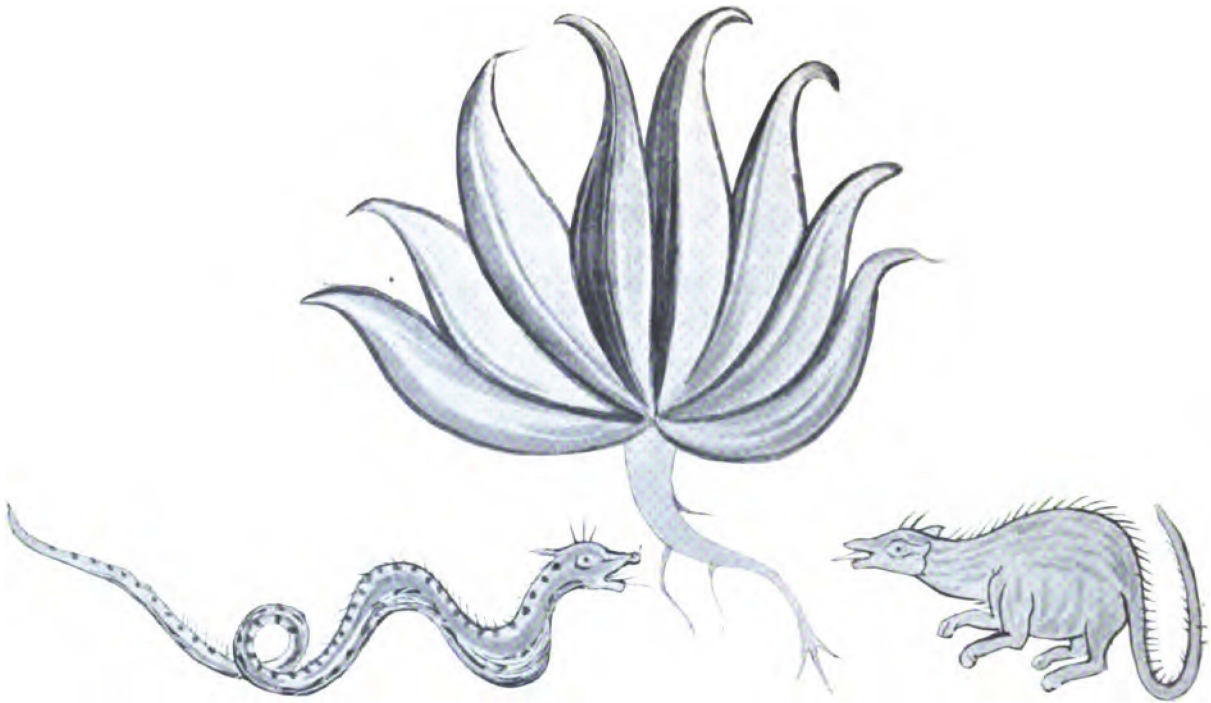

FIG. 22. Cynoglossum, Hound's-tongue; probably a mistake for Arnoglossum, Plantain; with snake attacking an animal, apparently a rat. From B. Mus. MS. Harley 5294, fol. 37. *A.-S. L.*, Vol. I, p. 211.

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